

# HOUSEHOLD HAZARDOUS WASTE

## *Drinking Water Source Protection*

### Public Education Series

Waste is often disposed in our yards and neighborhoods. Some hazardous products are disposed by throwing them in the trash, pouring them in a ditch, dumping them on a vacant lot, or burning them in the "back 40." Waste disposed in an open dump, or even underground, can percolate through the soil and contaminate groundwater.

To minimize the pollution potential from household waste, it is important to minimize the amount of waste produced, especially hazardous waste. Examine any activities that involve the use of hazardous materials and make sure that you really need all the products you are buying. Carefully consider how to use the products safely and recycle or reuse them when possible. Dispose of used or remaining products in a way that will not pose a risk to surface water or ground water. A few simple management principles apply in every situation:

- ▶ Follow the label.
- ▶ Contain any unusable waste, spills, and drips for appropriate disposal.
- ▶ Take uncontaminated recyclables to a recycling facility if one is available.
- ▶ Never throw away or bury wastes on the ground or in abandoned wells.
- ▶ Do not pour waste down the drain.

### How Safe Is Your Drinking Water?

Drinking water comes from ground water sources, such as wells and springs, or surface sources, such as rivers and lakes. Drinking water in Utah is safe, but it can become polluted if we are not careful. Many of the things we do at home can pollute our water and the environment. Poorly maintained or designed septic tank/drain-field systems can pollute surface and ground water. Pesticides, fertilizers, fuels, and cleaning products can contaminate our water when they are not stored and handled properly.

Everyone is responsible for protecting drinking water. It is nearly impossible to get pollutants out of water once they get there. Expensive treatments or new wells would be required to make drinking water safe again. Clearly, it is much more effective to keep pollutants out of water than to try to clean it up.

### What Is Hazardous Waste?

Many of the products we use for housework, gardening, home improvement, and equipment maintenance contains hazardous materials that endanger our health and the environment. These materials can contaminate our drinking water if they are not stored carefully and disposed properly. In addition to polluting our water, careless use and disposal of hazardous household products can cause injuries, poisoning, and air pollution.

Hazardous materials have the following features:

- ▶ Ignitable - capable of burning or causing a fire
- ▶ Corrosive - capable of eating away materials and destroying living tissue when contact occurs
- ▶ Explosive - can cause an explosion or release poisonous fumes when exposed to air, water, or other chemicals

- ▶ Toxic - poisonous, either immediately (acutely toxic) or over a long period of time (chronically toxic)
- ▶ Radioactive - can damage and destroy cells

### How Do You Know If a Product Is Hazardous?

Read the label. If a product contains a hazardous substance, the front label must include a warning and a description of the hazard. The hazard may be a health hazard or it may be an environmental hazard. The label will also include instructions for safe handling and use, the common or chemical name, and first aid instructions.

### Types of Household Hazardous Waste

Most hazardous household products can be grouped into four major categories:

- ▶ Automotive products that are hazardous include motor oil, brake and transmission fluid, antifreeze, car batteries, gasoline, kerosene, diesel fuel, and car wax with solvent.
- ▶ Household cleaners include drain cleaners, oven cleaners, toilet cleaners, spot removers, silver polishes, furniture polishes, liquid cleanser, powdered and window cleaners, bleach, and dyes.
- ▶ Paint and solvents that are hazardous include latex, oil-based, auto and model paint, paint stripper, primer, rust remover, turpentine, varnish, wood preservative, mineral spirits, and glue.
- ▶ Pesticides, these include: herbicides, insecticides, and fungicides.

### **General Rules for Managing Hazardous Products**

#### *Rules for Buying Hazardous Products*

- ▶ Read labels. Make sure the product will do what you want and that you feel safe using it.
- ▶ Select the least hazardous product that will do the job.
- ▶ Buy only what you need.
- ▶ Use products with pumps, not aerosols.
- ▶ Select water-based products rather than solvent-based products.
- ▶ Use products in containers made from recycled materials.

#### *Rules for Using Hazardous Products*

- ▶ Read and follow the directions.
- ▶ Wear protective clothing, if necessary.
- ▶ Make sure your work area is well ventilated.
- ▶ Seal products tightly.
- ▶ Do not smoke, eat, or drink when using these products.
- ▶ Use products carefully.

#### *Rules for Storing Hazardous Products*

- ▶ Store products according to label directions.
- ▶ Protect the original label.



- ▶ Store hazardous household chemicals in the original container.
- ▶ Keep containers dry to prevent corrosion.
- ▶ Store similar products together to reduce any danger from reactions if containers should leak or contents should spill.
- ▶ Store products in a well-ventilated area.
- ▶ Store products away from children and pets. Generally high, locked shelves work best.
- ▶ Store products away from any flammable materials or sources.

### *Rules for Disposing of Hazardous Waste Products*

- ▶ Do not mix products. You may start a dangerous chemical reaction.
- ▶ Do not flush waste down your sink or toilet.
- ▶ Never burn, dump, or bury hazardous waste.
- ▶ Do not pour hazardous household waste into ditches, storm drains, or gutters.
- ▶ DO RECYCLE products and containers whenever possible.

### **Automotive Products**

Included in this category of hazardous substances are batteries, motor oil, grease and other lubricants, antifreeze, and gasoline and related petroleum products.

#### Disposing of Oil and Lubricants

Store waste oil in closed, labeled containers (plastic milk jugs work well) until you can take the oil to be recycled. Service stations often accept limited amounts of used oil or can inform you of places that do accept it. Disposing of used oil around your home, such as on driveways or around buildings and fences, can contaminate your community drinking water supply. Used motor oil contains organic chemicals and metals. A small amount of oil can contaminate large quantities of ground water. It is illegal to use oil for road oiling and dust control.

#### Recycling Vehicle Batteries

Vehicle batteries contain lead and sulfuric acid. The lead can contaminate water and the acid can burn skin. A battery contains approximately 18 pounds of toxic metals and a gallon of corrosive acids. Batteries should be stored in a safe dry place out of direct sunlight and out of reach of children and pets.

Vehicle batteries cannot be disposed in landfills. The only satisfactory way to dispose of old batteries is to recycle them. All stores that sell batteries will take back used batteries. Some service stations and scrap metal dealers will also take used batteries. Many communities have recycling centers that handle old automotive batteries.

#### Disposing of Antifreeze

Do not pour antifreeze into a septic system. The antifreeze will kill the beneficial organisms in your septic system that make it work. Used or excess antifreeze should be recycled. Antifreeze cannot be disposed in a sanitary landfill; it should be used up or recycled.

Pouring antifreeze on the ground or into a ditch can lead to ingestion by pets, seepage into the ground water supply, or contamination of surface water sources. Antifreeze contains chemicals which are poisonous to

animals and humans. Pets will lap up an antifreeze puddle because it tastes sweet. This is often fatal. Therefore, it is very important to store your antifreeze in a safe place, secured from children and pets.

### Storing and Using Gasoline and Other Fuels

Petroleum products are among the most hazardous substances found around the home. Use up old fuels by diluting one part old fuel with five parts new fuel to protect engines. If disposal of old fuel is necessary, small amounts may be taken to service stations or community hazardous waste collection sites. Contact your local health department for the proper procedures for disposing of large quantities of fuel.

### **Paints and Solvents**

The best method for managing paint, solvents, and cleaning products is to use them up. To avoid wasting any of these products, buy only the quantity that you need. Store them in well-ventilated areas, away from children and pets.

### Storing and Disposing of Paints and Stains

One of the best ways to use up old paint is to give it to someone who will use it. Store paint in a dry place where it won't freeze. Paint is usually usable if it mixes well when stirred and hasn't been frozen and thawed repeatedly.

Oil-based paints have a solvent base which can be harmful to septic systems if the paint is poured down the drain. Any paint that needs to be disposed should first be dried out in a well-ventilated area away from children, pets, flames, or anything that might spark. For small quantities of paint, remove the lid and let it dry in the can. After the paint has dried, seal it in a plastic bag and take it to the landfill. A better choice is to recycle paint at a household hazardous waste collection site.

### Storing and Disposing of Solvents

Disposing of solvents by dumping them on the ground or in a septic system allows the solvents to percolate into the soil and possibly into the ground water. Because of this, solvents should never be poured on the ground or into a drain that discharges to a septic system. Always use solvents in a well-ventilated area. Store them in their original containers and out of the reach of children.

Some solvents, such as paint thinner, can be cleaned and reused. Clean dirty solvents by placing them in a closed transparent container and storing them until the paint or other material settles to the bottom. After the sludge has settled out, pour the clean, reusable solvent off the top. Let the sludge dry and take it to a permitted landfill or household hazardous waste collection site.

**Household Pesticides** (See the sheet titled *Pesticides and Fertilizers*, for information on storage, handling, and disposal of pesticides.)

For more information about hazardous waste, contact your local health department or county Extension agent.

- Adapted from North Carolina materials produced for their Home\*A\*Syst Program.
- Utah Division of Drinking Water, Source Protection Program