

# Chapter 5 MANAGING HAZARDOUS HOUSEHOLD PRODUCTS

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**S**ome commercial products commonly used at home have the potential to harm your health and the environment. This chapter will help you identify potential product hazards and minimize your risks. It covers safe management of products, from purchase to disposal. The chapter is divided into three parts:

1. *Product Selection, Purchase, and Use.* This section discusses:

- product selection criteria
- how much of a product to purchase
- safety precautions for use

2. *Safe Storage.* Topics covered in this section include:

- child safety considerations
- containers and spill protection
- proper ventilation

3. *Product Disposal.* This part reviews what to do with leftovers.

## *Why should you be concerned?*

Some products used around the home contain ingredients that can pose threats to your health or the environment if not handled properly (figure 5.1). Vapors from paint thinner and other solvents can be hazardous to breathe. Products such as motor oil or pesticides—if disposed of on the ground—may contribute to the pollution of your drinking water or a nearby stream.

For each chemical or product, there are many questions to consider. Which product best meets your needs? Are there safer alternatives? Is it dangerous to children? What is the best way to store it? How can you use it safely? How do you dispose of leftovers?

This chapter will help you make choices that will reduce risks to your family and your watershed. Remember that you are responsible for the safe use, reuse, or disposal of any products in and around your home. It's up to you to understand how to make a good decision.



**Figure 5.1** Some household products contain ingredients that can threaten your health or the environment if not handled properly.

### **What does the word hazardous mean?**

A thing or situation is hazardous if it has the potential to cause harm. For example, a child's rollerskate left on a stair is hazardous.

Household products are hazardous if they include ingredients that, when improperly managed, pose dangers to human health or the environment (see sidebar at right). Not every product in a category of products is hazardous—for example, some paints and strippers are less hazardous than others. To be safe, learn how to properly use, store, and dispose of products.

It is also important to know the difference between hazards to human health and hazards to the environment. These are explained below.

### **Hazards to human health**

Health problems can be caused by chemicals in some of the products in your home *if product warnings and directions for proper use are not heeded*. Health effects can range from minor problems, such as irritated skin or watery eyes, to more serious problems, such as burns, poisoning, or even cancer.

You can be exposed to a product ingredient by (1) ingestion, including accidental ingestion by drinking, eating, or smoking when a substance is on your hands; (2) breathing dust or fumes (inhalation); or (3) contact with skin or eyes (figure 5.2). The potential for harm from exposure to a hazardous product depends on:

- the type of chemicals in the product
- how much of the chemical you are exposed to
- how frequently you are exposed
- your size, weight, and health

If exposure occurs, some harmful effects appear immediately. Typical symptoms are nausea, skin irritation, burning eyes, dizziness, and headaches. Other effects, such as kidney or lung damage or cancer, take a long time to develop. A person who uses hazardous products frequently—without adequate safety precautions or proper ventilation—may experience these serious health effects.

To avoid accidental exposure...

- Follow the safety precautions recommended on the product label.
- Always work in a well-ventilated area, especially if the product contains a solvent. (Solvent-containing products have the words "Flammable," "Combustible," or "Contains Petroleum Distillates" on the label.)

- Wear protective clothing such as gloves and goggles when the product label recommends it.
- Remember that label precautions are there for a purpose—to ensure your safety while using the product.

### **HOUSEHOLD PRODUCTS THAT COULD BE HAZARDOUS IF IMPROPERLY MANAGED\***

**Building supplies**—sealants, some adhesives, wood preservatives

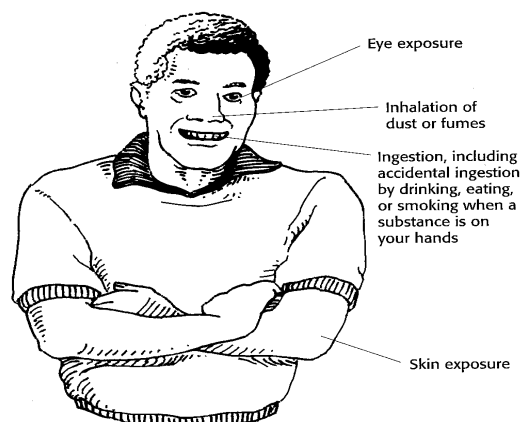
**Vehicle-related products** - antifreeze, oil, cleaning solvents, lead-acid batteries, gasoline

**Home maintenance products** - oil-based paints, mineral spirits, products that can remove difficult greases or adhesives, paint stripper

**Hobby and recreational supplies** - photo developer chemicals, marine paints, electronic equipment cleaners, swimming pool chemicals

**Pesticides** - herbicides, insecticides, rodent poison, yard insect foggers, chemical strips, fungicides, aquacides

**\* See the chart on pages 58-60 for a more detailed listing of products**



**Figure 5.2** You can be exposed to a product ingredient by ingestion, inhalation, and contact with skin or eyes.

### **Hazards to the environment**

How we manage products used on or near our property can affect the environment. Ingredients in some household products can be hazardous to plants

and animals in natural environments. Pesticides or motor oil washing into a stream, for example, can harm fish. Human health can also be threatened if our food, water, or air becomes contaminated through improper use or disposal of a household product. Other chapters in this guide detail management practices for specific categories of contaminants; see the table of contents at the beginning of this book.

Once released, some chemicals can be integrated into the environment without any harmful effects. Others persist and have many different effects. Some chemicals can become integrated into living systems and be passed from one organism to another. If enough of a toxic chemical accumulates, it could harm an organism's ability to reproduce, damage its nervous system, or impair the function of its liver or kidneys.

Most chemicals likely to cause environmental problems are regulated by federal law. But because it is difficult to keep track of the small quantities used by homeowners, everyone needs to do their part to minimize the impact of use and disposal. Some cleanup or disposal practices may not seem like they could lead to trouble, but even old habits should be examined for potential risks.

### ***To protect the environment...***

- Avoid...
  - dumping oils, paints, pesticides, or any other household chemicals on the ground, on roads, or down storm sewers
  - dumping products in a wetland, stream, or any other body of water
  - washing chemicals off the driveway with a hose
  - pouring pesticides or non-water-soluble chemicals into a drain that leads to a septic tank
  - spraying pesticides on a windy day
  - burning containers in a barrel or outdoor fire
- Use up a product according to label directions.
- Share any leftovers with a neighbor or local organization.
- Find out if a product can be recycled and where to recycle it in your community.
- Find out if your community has a hazardous waste collection program. Use the community program to dispose of any leftover products listed in the chart on pages 58-60 at the end of this chapter.

## **PART 1—Product Selection, Purchase, and Use**

Your choice of products is the first step. By carefully

selecting the product for the job needed, you can control the degree of "hazard" you bring to your home or property. At the end of part 1, fill out the assessment table to evaluate your risks regarding product choice and use. The information below will help you answer the questions in the assessment.

### ***How can you tell which products are hazardous?***

It is often difficult to find out what is hazardous and to whom and how something is a hazard. It pays to learn as much as you can about a household product and its potential hazards before purchasing the product. Labels contain important information and often tell if a product could be hazardous. Health problems can be avoided by carefully following directions for use and safety.

Remember, *absence* of a warning on a product label does not necessarily mean that the product is safe. Old products or products not designed for household use may not provide consumer information on the label. When using any chemical product, use it with care and caution.

In addition to product labels, up-to-date publications and advice from experts are also good sources of information. Ask questions, and look for helpful ideas from health agency employees, Cooperative Extension staff, articles, and books. See pages 58-60 at the end of this chapter for a listing of products likely to include ingredients of concern.

### ***What can product labels tell us?***

Information on the product label can help you decide whether the product is right for the job and if it can be used safely in your situation. Before you purchase or use a product, take the time to read the label, even though the print is often tiny (figure 5.3 on the following page). Labels provide details about how to safely use, store, and dispose of a product. First-aid instructions are provided when needed.

Household consumer products that are hazardous or contain hazardous substances are required to have human safety information, or warning labels. Pesticide labels are also required to provide detailed information on use, storage, and disposal. As you read this section, take a look at the labels on some of the products in your home.

The *signal words*—CAUTION, WARNING, and DANGER—draw your attention to important human safety information. However, they can mean different things, depending on the product. Labels on pesticides provide information about the poison level

of the pesticide. On household products, they describe immediate health effects resulting from improper use. The signal word DANGER is required on any product that is extremely flammable, corrosive, or toxic. Products labeled DANGER, FLAMMABLE, POISON, VAPOR HARMFUL, or FATAL IF SWALLOWED may have ingredients that could cause environmental damage as well as health problems if used, stored, or disposed of improperly.

Beware of terms on labels that are vague and possibly misleading. The Federal Trade Commission has provided manufacturers with guidelines about vague environmental terms such as "ozone safe" or "environmentally friendly," but the use of such terms is not regulated on any products except pesticides.

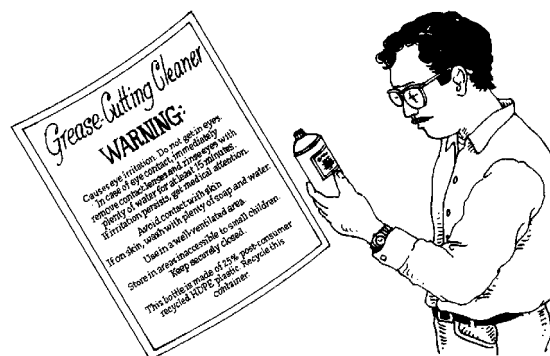
If you need more information about a product than is provided by the label, you may want to request a Material Safety Data Sheet (MSDS) from the manufacturer, or consult a Poison Control Center (see sidebar below right). Most manufacturers provide a phone number on their product label and are willing to answer questions by phone.

### **Can an alternative product do the job?**

When choosing from among several brands of the same kind of product—for example, paint strippers or degreasers—read the labels to learn which product will meet your needs most safely. If you don't check first, you might buy a hazardous product such as a solvent-based cleaner when a detergent-based cleaner is available or a common alternative like kitchen cleanser will work. Manufacturers are aware of consumer safety issues, and many offer a range of products. Some alternatives are suggested in the sidebar on the following page. For more help in deciding which products to buy, check the resources listed on page 56 at the end of this chapter.

In an effort to reduce risk from hazardous chemicals, many organizations have distributed information about making mix-at-home cleaners using readily available ingredients. Be advised, however, that your homemade product may not be a safer alternative. If you choose to make your own household products, be sure to consider these precautions:

- Use only one ingredient at a time. Never mix ingredients or products. Be sure to rinse the surface between products used on one place.
- Always test any cleaner on a small area before applying it to the whole surface.



**Figure 5.3** Product labels provide details about how to safely use, store, and dispose of a product.

- Do not use food products for cleaning (such as vegetable oil or milk). Food products may spoil or support growth of bacteria or mold on the surface being cleaned.
- Use clean containers when storing homemade products, and clearly label the container with the contents and date. Never store homemade products in old containers from commercial products.

### **Do you buy only what you need?**

If you buy more than you need, household products will accumulate and create storage problems. If unused for long periods, product containers may become

**IN CASE OF EMERGENCY**

Whether you are using a cleaning product or a pesticide, don't rely only on the label for information on health emergencies or environmental dangers. The information may be incomplete or incorrect. Poison Control Centers - whose resources feature a national computer data network - can provide emergency health information about a product. Look up your local or state number, write it here:

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and keep the number close to your phone. For information about spills of hazardous products, contact your state natural resources or agriculture agency, or the National Response Center at (800) 424-8802.

damaged and leak, and products may change chemically and not be effective when you finally try to use them. Some products such as pesticides may

have been restricted or banned since they were purchased. If that occurs, safe and legal disposal becomes much more difficult. Avoid these problems by purchasing and using only what you need.

<b>LOOKING FOR AN ALTERNATIVE?</b>	
<b>Adhesives</b>	—Use a water-based or latex adhesive.
<b>Batteries</b>	—Choose rechargeable batteries (removable, so they can be recycled) and mercury-free batteries when possible.
<b>Cleaners</b>	—Choose soap- or detergent-based cleaners when possible. Avoid non-water-soluble and corrosive cleaners when others offer an effective substitute.
<b>Household pesticides</b>	—Look for ways to reduce your need for these products through appropriate cleaning and maintenance habits.
<b>Floor and wood-finish strippers</b>	—Use a detergent or water-based stripper.
<b>Paint stripper</b>	—Use sandpaper, a scraper, or heat gun for small jobs.
<b>Wood preservative</b>	— Use a water-sealing coating.
Several of the above suggestions were provided by the Minnesota Pollution Control Agency.	

**Assessment 1- Product selection, purchase, and use**

The risk categories and recommendations found in the assessment table below and others that follow apply to hazardous products in general. For some products, there will be management options that are not covered. If you are not sure what to do, don't take chances. Find out what is safe.

Use the table to rate your risks related to the selection, purchase, and use of household products. (Parts 2 and 3 in this chapter cover storage and disposal.) For each question, indicate your risk level in the right-hand column. Some choices may not be exactly like your situation, so choose the response that best fits. Refer to part 1 above if you need more information to complete this table.

**Responding to risks**

Your goal is to lower your health risks and reduce potential harm to the environment. Turn to the action checklist on page 57 to record the medium- and high-risk practices you identified. Use the recommendations above to help you plan actions to reduce your risks.

**• ASSESSMENT 1—Product Selection, Purchase, and Use**

	<b>LOW RISK</b>	<b>MEDIUM RISK</b>	<b>HIGH RISK</b>	<b>YOUR RISK</b>
<b>Product selection</b>	I always read labels; understand signal words; and respect the health or environmental hazards labels describe. I choose the least hazardous product needed for the job.	I don't read labels or don't understand what they mean, but I use a "common sense" approach to safety.	I never read labels. I purchase products without considering what the product is made of or how it will be used.	O Low O Medium O High
<b>Quantities purchased</b>	I buy only what is needed for a specific job. I use up most of the product within a few months after purchase or give excess away to someone else.	I buy excess product, but provide safe and accessible storage	I buy more than is needed, then purchase additional product without checking on current supplies.	O Low O Medium O High
<b>Safety precautions</b>	I follow label instructions and take recommended precautions against exposure (such as providing good ventilation and wearing safety goggles and gloves). I never mix products.	I occasionally read label instructions. I take some precautions. I occasionally mix products for specific cleaning tasks, but I always check safety precautions first.	I never follow label instructions and take no precautions—even when recommended. If one product doesn't work, I add in another without checking safety precautions.	O Low O Medium O High

\*Safe disposal is also part of safety precautions. See part 3, "Product Disposal," for tips.

## PART 2—Safe Storage

Leftover or used chemicals such as strippers, paint, waste oil, used antifreeze, and solvents may need to be stored until their next use or disposal (figure 5.4). How you store household products can determine how much risk may be present. Use the information below to help you fill out the assessment table at the end of this section.

### **Are your storage locations and containers really safe?**

When storing household products, the primary concerns are child safety (figure 5.5), indoor air quality, and prevention of damage to household equipment or the environment. If you can smell a household product while it is in storage, the product lid may be loose or ventilation may be inadequate to protect your health.

#### **WHEN YOU STORE HOUSEHOLD PRODUCTS, DO YOU:**

- Keep them out of the reach of children and pets, preferably in a locked, secure area?
- Store them in their original containers?
- Clearly label and date any alternative containers?
- Keep containers tightly sealed and dry?
- Store products at least 150 feet from a well or waterway?
- Keep products in a well-ventilated area and away from sources of ignition?
- Store batteries and flammable chemicals in an area shaded from direct sunlight?

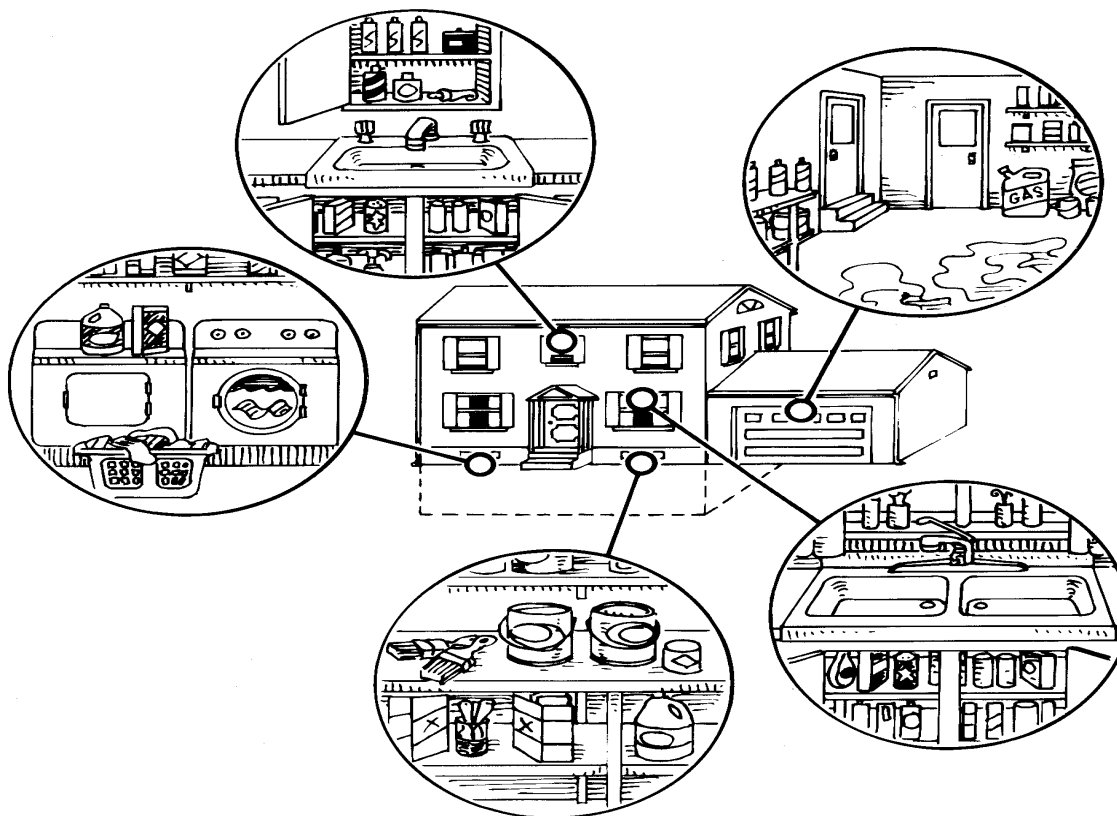
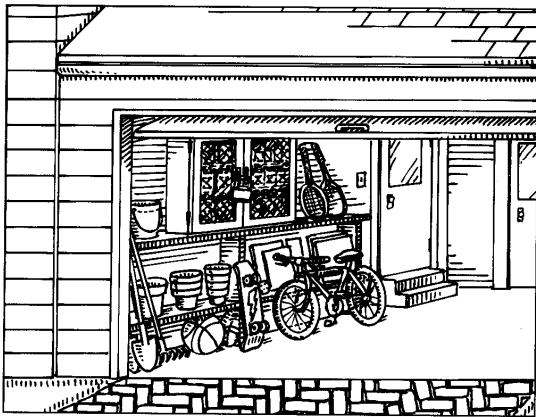


Figure 5.4 Hazardous products may be stored throughout a household.



**Figure 5.5** Hazardous products should be stored in a locked cabinet or other location inaccessible to children.

Be sure to separate corrosives like acids or lye from each other and other hazardous products to prevent dangerous chemical reactions. Reactions occur when corrosives leak from their containers and drip or flow to other products. Corrosive materials are often stored where equipment and appliances are located; be aware that they can corrode air conditioning and heating systems, hot water heaters, and other equipment or appliances. Routinely check areas where you store household products (under the kitchen sink, in the basement or garage) to make sure that containers are closed tightly and not leaking, and

that the sides of containers are not bulging.

### Assessment 2—Safe storage

Use the table below to rate your risks related to product storage. For each question, indicate your risk level in the right-hand column. Some choices may not be exactly like your situation, so choose the response that best fits. Refer to part 2 above if you need more information to complete this table. See part 1 for choices about product selection and part 3 for choices about disposal.

### Responding to risks

Your goal is to lower your health risks and reduce potential harm to the environment. Turn to the action checklist on page 57 to record the medium- and high-risk practices you identified. Use the recommendations above to help you plan actions to reduce your risks.

## PART 3—Product Disposal

Unless a product is used up, you will have to dispose of it. For some products that are especially hazardous—like pesticides—even the product *container* will have to be disposed of properly. Part 3 provides tips for disposal of certain hazardous product categories, but readers are referred to the disposal guides listed on page 56 at the end of this chapter for detailed management recommendations.

### • ASSESSMENT 2—Safe Storage

	LOW RISK	MEDIUM RISK	HIGH RISK	YOUR RISK
<b>Child safety</b>	I store hazardous products in a locked cabinet or other location inaccessible to children.	I keep products out of the direct reach of children (on a high to shelf, for example)but still accessible.	My products are easily accessible to children (for example, in an unlocked cabinet on the lower shelf).	<input type="radio"/> Low <input type="radio"/> Medium <input type="radio"/> High
<b>Containers, storage location, and spill protection</b>	I store leftovers in their original containers, properly sealed. Products are stored by type. My home environment is protected against leaks or spills.	I store original containers in a disorganized way. I don't provide protection against leaks or spills.	I transfer leftovers to other containers such as used milk jugs or glass jars. I store leftovers without caps or lids. I don't provide protection against leaks or spills.	<input type="radio"/> Low <input type="radio"/> Medium <input type="radio"/> High
<b>Ventilation</b>	I store volatile products (like solvents and petroleum-based fluids) in places with good ventilation.	I don't pay attention to storage location, but each container is in good shape and tightly sealed.	I store products in areas with poor ventilation such as basements, closets, or crawl spaces. Containers are damaged or left open.	<input type="radio"/> Low <input type="radio"/> Medium <input type="radio"/> High

### **What is the best way to dispose of leftover hazardous products?**

Disposal should be your last option because it is wasteful and, if not done properly, can be unsafe for you and the environment. You can avoid the disposal dilemma by buying and using only what you need, using up your leftovers, or recycling. By giving leftover products to a neighbor or local organization who can use them, you can turn a potential waste problem into a cost-saving opportunity.

Some communities sponsor swap programs to encourage sharing, and options for recycling are increasing. Used motor oil and antifreeze, for example, are accepted in many communities and automobile repair shops for recycling (figure 5.6). Some pesticide containers may be returned to where they were purchased for safe disposal.

Some cities and communities sponsor either occasional or permanent household hazardous waste collection programs. Because only certain hazardous products may be accepted, contact the program to learn exactly what materials are accepted. If your community does not sponsor such a program, contact local sanitation officials for disposal advice.

Household quantities of some products can be safely sent to a landfill. For example, leftover paint—if local regulations permit—can be evaporated in its can. When dry, the can with its hardened contents can be discarded in household garbage.



**Figure 5.6** Used motor oil and antifreeze are Accepted in many communities for recycling.

### **Paint and pesticides merit special attention**

We all buy too much paint. Municipalities that collect leftover hazardous household products report that paints make up about half of the material that people bring and thus are a costly (but avoidable) disposal expense. The best practice is to avoid leftovers by calculating how much paint you'll need before you buy. Salespeople at paint stores can help you with these calculations.

Most leftover paint can be safely managed by sharing it with neighbors or organizations. However, leftover lead-based paints or exterior paints containing mercury or pesticides should be treated as hazardous waste.

We don't pay enough attention to how we manage pesticides. A 1992 U.S. Environmental Protection Agency study of pesticide use in homes and gardens provided disturbing information about how pesticides are used, stored, and thrown away. Household practices showed that people fail to recognize the danger that pesticides can pose to child safety, human health, or the environment when managed improperly.

Before you choose a pesticide, be sure that you have exhausted other options for managing the pest, weed, or fungus problem (see suggestions in the sidebar below). If you do need to use a pesticide, read label information carefully before purchasing a product. Buy only what you need.

Pay attention to use and disposal recommendations described on labels. Before disposal, use up the product if possible. Rinse empty containers of liquid pesticides. Use the rinse water as part of your yard and garden management. Chapter 7 provides additional advice for managing yard and garden pesticides.

#### **REDUCE YOUR NEED FOR PESTICIDES IN THE HOME**

- Maintain regular cleaning habits, especially in the kitchen area.
- Caulk cracks and other openings to the outside.
- Keep screens repaired.
- Keep houseplants healthy by providing appropriate care.

**Is dumping or burning a safe alternative?**

It is *never* appropriate to dump or burn hazardous products on your property, particularly near wells or water sources. Nor should products be poured down storm sewers. Water-soluble cleaning products may be safely disposed down the drain if you flush the drain with plenty of water.

Septic system owners need to be especially careful, however. With septic systems, the rule of thumb is moderation. Don't dump large amounts of *anything* into the septic system. Septic systems are not designed to treat chemicals. If the product is specifically designed to be used in the home with water, then moderate use will not harm the system. Burning hazardous wastes in a barrel or stove is never an alternative—and it's illegal in many states. Burning may release toxic gases and produce hazardous ash.

**Assessment 3 - Product disposal**

General recommendations for disposal are provided in the table below. Check the waste category in the left column and see if any of your disposal practices present risks to human health or the environment. (See the chart beginning on page 58—Hazardous Product Examples and Inventory—for specific products affected by these recommendations.)

**Responding to risks**

Your goal is to lower your risks. Turn to the action checklist on page 57 to record the medium- and high-risk practices you identified. Use the recommendations above to help you plan actions to reduce your risks.

**• ASSESSMENT 3—Product Disposal**

	LOW RISK	MEDIUM RISK	HIGH RISK	YOUR RISK
<b>Household Trash Trash containing plastics or empty containers of hazardous ingredients</b>	I rinse empty yard and garden pesticide container and include the rinse water in yard and garden management. I dispose of ash, mixed trash, and empty product containers at the community landfill. I do not burn trash.	I dispose of ash from mixed trash, leftover pesticides and solvents on my property, but away from my well or waterway. I burn hazardous containers.	I always dispose of ash from mixed trash, leftover pesticides and solvents near a well or waterway. I burn hazardous containers near people or animals.	<input type="radio"/> Low <input type="radio"/> Medium <input type="radio"/> High
<b>Strong acids and bases Found in hobby and recreation products, concentrated building cleaners, and repair products</b>	I share any leftover products. I dilute strong acids and bases and pour them down a drain that connects to a sewage treatment facility.	I pour strong acids and cleaners down the drain without first diluting them with water. I send leftovers to a landfill (with proper protection for garbage haulers and employees).	I dump strong acids and cleaners directly into a storm sewer or waterway or on a paved slope leading to a waterway.	<input type="radio"/> Low <input type="radio"/> Medium <input type="radio"/> High
<b>Antifreeze, waste motor oil</b>	I recycle antifreeze and waste oil by taking them to properly qualified dumping stations	I pour my used antifreeze into a septic system or municipal treatment system.	I dump my used antifreeze and waste oil always in the same place, near a well or waterway. I dump these materials directly into a waterway.	<input type="radio"/> Low <input type="radio"/> Medium <input type="radio"/> High
<b>Batteries May contain mercury, cadmium, or lead</b>	I recycle batteries or take them to a hazardous waste disposal program.	I dispose of batteries in a community landfill.	I always dump batteries near a well or waterway.	<input type="radio"/> Low <input type="radio"/> Medium <input type="radio"/> High

\* Refer to the inventory chart on pages 58-60 for examples of some categories.

*continued on next page*

• **ASSESSMENT 3—Product Disposal (continued)**

	<b>LOW RISK</b>	<b>MEDIUM RISK</b>	<b>HIGH RISK</b>	<b>YOUR RISK</b>
<b>Bottled gas</b>	I recycle bottled gas containers.	I store containers that may still contain some gas.	I put containers in my trash or leave them lying around.	O Low O Medium O High
<b>Cleaning and repair products containing hazardous solvents (non-water-soluble) and paint</b>	I share leftovers when possible. I take leftover products containing mercury, pesticides, or hazardous solvents to a hazardous waste disposal program.	I dispose of leftover products in a community landfill.	I always dump leftover products. I dump leftovers near a well or waterway. I dump all my leftovers directly into a waterway. (NOTE: <i>This is illegal!</i> )	O Low O Medium O High
<b>Fluorescent bulbs</b> Contain mercury.	I recycle burned-out fluorescent bulbs or lamps.	I put my burned-out bulbs in the trash.	I leave my burned-out bulbs at a dump.	O Low O Medium O High
<b>Pesticides</b> See chapter 7, "Yard and Garden Care" (page 69), information.	I use preventive actions to control pests, indoors and outdoors. I explore options for nonchemical pest controls. I properly choose, store, handle, apply, and dispose of chemical pest controls.	When solving pest problems, I do not practice much prevention or explore nonchemical options.	I DO NOT handle pesticides as directed on the label.	O Low O Medium O High

\* Refer to the inventory chart on pages 58-60 for examples of some categories.

## **ACTION CHECKLIST**

When you finish the assessments, go back over them to make sure you have recorded all medium and high risks in the checklist. For each risk you identified, write down the improvements you plan to make. Use recommendations from this chapter and other resources (see "For More Information" below). Pick a target date to keep you on schedule for making changes. You don't have to do everything at once, but try to eliminate the most serious risks as soon as you can. Often it helps to start with inexpensive actions first.

## **For More Information**

### **Managing hazardous household products**

Contact your local, county, or state government. No matter where you live, there are government and agency personnel who can help.

### **Managing pesticides**

See chapter 7, "Yard and Garden Care," which begins on page 69. For detailed guidance on pesticide management, see *Guides to Pollution Prevention*:

*Non-Agricultural Pesticide Users*, United States Environmental Protection Agency, 1993, document EPA/625/R-93/009. This 58-page guide, which includes nine worksheets, is available from the National Center for Environmental Publications and Information, P.O. Box 42419, Cincinnati, OH 45242-2419; fax (513) 489-8695.

### **Disposal**

The Water Environment Federation's (WEF) waste disposal guide provides disposal recommendations for many kinds of products. You may be able to get one from your local sewage treatment facility or contact WEF, Public Information Department, 601 Wythe Street, Alexandria, VA 22314-1994; phone (800) 666-0206 or (703) 684-2452.

Other guides are available from the Environmental Hazards Management Institute (EHMI). For more information, write to them at 10 Newmarket Road, Durham, NH 03824; phone (800) 558-EHMI; fax (603) 868-1547; or e-mail <EHMIORG@AOL.COM>. Your local Cooperative Extension office may have similar guides.



## Hazardous Product Examples and Inventory

Check for hazardous products stored in your home. Use the list below to plan ways to improve your use, storage, and/or disposal of these products. If you are unsure about disposal, contact your local Cooperative Extension office or state environmental protection agency.

Category/product	Is it properly stored?	Is information about proper disposal needed?	Are there special precautions to keep in mind?
<b>HOUSEHOLD TRASH</b>			
Ash/sludge from burned home or garage trash ( <i>Note: Burning trash is illegal in many states!</i> )			
Fluorescent bulbs/lamps (contain mercury)			
Waste motor oil			
Plastic wraps and containers (only hazardous when burned)			
Pesticide or solvent containers			
Empty containers from other product categories listed below			
<b>CLOTHING AND FABRIC CARE PRODUCTS</b>			
Mothballs			
Dry-cleaning fluids			
Spot removers (solvent-based)			
Shoe/leather polishes			
<b>HOBBY AND RECREATION PRODUCTS</b>			
Artist paints and solvents			
Charcoal lighter fluid			
Strong acids/bases*			
Bottled gas			
Household batteries (may contain mercury or cadmium)			
<b>BUILDING/WOOD CLEANERS AND REPAIR PRODUCTS</b>			
Building and wood cleaners with organic solvent ingredients:			
• Wood polishes			
• Products for wood floor and panel cleaning			

\* See note on page 60. *continued on next page*

*continued on next page* ▶

<b>Category/product</b>	<b><i>Is it properly stored?</i></b>	<b><i>Is information about proper disposal needed?</i></b>	<b><i>Are there special precautions to keep in mind?</i></b>
<b><i>BUILDING/WOOD CLEANERS AND REPAIR PRODUCTS (continued)</i></b>			
Building and equipment maintenance products:			
• Strong acids, bases*			
• Lead-based paint (see chapter 6, "Lead In and Around the Home," for more information)			
• Oil/alkyd paints and primers			
• Marine and exterior paints containing mercury and/or pesticides			
• Aerosol paint products			
• Stains and finishes			
• Roof coatings and sealants			
• Rust removers			
• Silicon lubricants			
• Other lubricants			
• Adhesive removers			
• Paint and finish preparation products			
• Adhesives such as glues and caulk			
• Wood-preserving products			
• Products for brush or spray gun cleaning			
• Water repellents for wood and cement			
• Solvents, as those used in degreasers and paint thinners, stains, and varnishes			
<b><i>PESTICIDES</i></b>			
<i>Pesticides labeled "restrictive use"</i>			
<i>General-use pesticides</i>			
<i>Old pesticides</i>			
<i>Unwanted pesticides</i>			

\* See note on page 60.

continued on next page ▶

<i>Category/product</i>	<i>Is it properly stored?</i>	<i>Is information about proper disposal needed?</i>	<i>Are there special precautions to keep in mind?</i>
<b>VEHICLE MAINTENANCE CHEMICALS</b>			
<i>Vehicle maintenance products such as antifreeze, oil and grease, and transmission fluid</i>			
<i>Solvents for oil and grease removal and disposal</i>			
<i>Engine and parts cleaners such as carburetor and brake cleaner</i>			
<i>Paints and paint preparation products</i>			
<i>Lead acid batteries</i>			
<i>Battery terminal protector</i>			
<i>Tire cleaners</i>			
<i>Rust removers</i>			
<i>Ignition wire dryer</i>			
<i>Gasket removers</i>			
<i>Aerosol paint and primer products</i>			
<i>Brake quieter</i>			
<i>Brush and spray gun cleaners</i>			

**NOTE:** You can identify strong acids or bases in the product you are using by noting:

- if the hazard warning label recommends that the user wear skin protection or avoid breathing the vapors or aerosol mists
- if the product was intended for commercial use (industrial-strength cleaner, for example)
- if the product was intended to manage difficult stains or dirt on hard surfaces (for example, rust or lime remover)

Now that you have completed this inventory, you are more familiar with hazardous products found in your home. Review the inventory once again and consider the following:

- Do I need all of these products in my home?
- Are there less hazardous alternatives I can use?
- Do I have as much information as I need to make good use, storage, and disposal decisions?