

MANAGING AND DISPOSING OF HOUSEHOLD HAZARDOUS WASTE (HHW)

“The average home can accumulate as much as 100 pounds of HHW in storage areas, garages, and sheds.” - EPA Statistics on HHW

Almost every home contains hazardous products. They are used in cleaning, home improvement projects, automobile and vehicle maintenance, yard and garden care, and a variety of other tasks. In order to protect your community’s health and the environment, you must know how to properly use, store, and dispose of these products.

Common household items such as paints, cleaners, oils, batteries and pesticides contain hazardous components. One way to help determine if households have hazardous components is to read the labels on products. Labels that read “danger”, “warning”, “caution”, “toxic”, “corrosive”, “flammable”, or “poison” identify products that might contain hazardous materials. Leftover portions of these products are called “**household hazardous waste**”. These products, if mishandled, can be dangerous to your community’s health and the environment.

Special wastes, such as household hazardous wastes, used oil, and tires are not normally collected with other solid waste and require special handling practices. Proper management of these special wastes will have environmental effects and will improve waste management in your community.

WHAT IS A HOUSEHOLD HAZARDOUS WASTE?

A “household hazardous waste” (HHW) is any product used for everyday household cleaning and upkeep that contains substances that threaten human health and the environment if disposed of improperly. Common detergents, cleaners, furniture polishes, pesticides, paints, thinners, solvents and do-it-yourself automotive materials are some examples of household hazardous wastes.

The disposal of household hazardous wastes is unregulated in most places. As a result, people typically dispose of them by pouring them down drains or in sewage lagoons, burning or burying them in the yard, or mixing them with non-hazardous household waste that is collected and disposed of the community landfill. Most people do not realize that such waste should be disposed of in a special manner, or they find it too costly or inconvenient to do so. Improper disposal of even small amounts of household hazardous wastes can cause fires or explosions, release toxic fumes, contaminate soil and ground water, and/or harm animals, fish or those people who handle the wastes unknowingly.

Proper disposal of household hazardous wastes is very important. Although other options exist, the most common and economically feasible approach to proper household hazardous waste management involves designating permanent sites (e.g., fire station, city workshop/shed, or landfill) for the collection of household hazardous wastes. Community members are invited to bring their household hazardous wastes to a specified location for

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recycling, treatment, or disposal by people trained to handle hazardous wastes. This service is usually made available to community residents at little or no charge.

Permanent collection sites increase the convenience of and participation in a household hazardous waste collection. It also reduces the risks of contamination from wastes that are being stored until there is a community collection day.

By definition, household hazardous wastes are exempt from all federal hazardous waste regulations of the Resource Recovery and Conservation Act (RCRA) and most state regulations related to hazardous waste. Even though these wastes are exempt from the hazardous waste laws, it is suggested that communities with household waste collection programs manage and handle all household hazardous waste as if it were a regulated hazardous waste to ensure a higher level of human health and environmental protection.

GENERAL CATEGORIES OF HAZARDOUS HOUSEHOLD PRODUCTS

Thousands of consumer products are hazardous, but to make it easier to remember which ones are hazardous, they can be broken into the following general categories.

- * **Automotive products** – Examples: gasoline, motor oil, antifreeze, windshield wiper fluid, carburetor cleaner, engine starting fluid, lead-acid batteries, brake fluid, transmission fluid, diesel fuel.
- * **Home improvement products** – Examples: **paint (oil based and latex), varnish, wood stain, paint thinner**, paint stripper, caulk, glues and adhesives, wood preservative.
- * **Health and beauty products** – Examples: hair remover, hair permanent lotions and dyes, nail polish, nail polish remover, prescription medicines, insulin needles.
- * **Pesticides** – Examples: insecticide and insect repellent; weed killer, rat and mouse poison, flea killer, mothballs, and disinfectant.
- * **Household cleaners** – Examples: furniture polish and wax, drain cleaner, oven cleaner, tub and tile cleaner, toilet bowl cleaner, Pine sol, spot remover, bleach, ammonia, household disinfectant.
- * **Miscellaneous products** – Examples: household batteries, cosmetics, shoe polish, lighter fluid, charcoal starter fluid, aerosol cans, ammunition, fabric dye, fireworks, mercury thermometer, craft glues and cement.

WHAT ARE THE DANGERS OF HOUSEHOLD HAZARDOUS PRODUCTS AND WASTES?

Look in any storage cabinet in any home and what do you see? If you see medicines, cleaners, automotive products, mosquito repellent, or any number of products, then you are

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looking at some of the most common household hazardous wastes. These products are all hazardous because they contain chemicals that are *corrosive, explosive/reactive, flammable, or toxic*.

Though usually safe when used according to label directions, these products can become dangerous when people are unaware, or forget, they are handling hazardous products. Each year, many children and even adults are injured these common household products. Accidental poison is one of the most common forms of injury. It typically happens when a product is left within the reach of small children. It can also occur when food, drink, or cigarettes are used while handling hazardous products. Many products have fumes or vapors that can irritate lungs. Hazardous products can cause severe burns, illness, blindness and even death.

When hazardous household products are no longer usable or wanted, they become household hazardous wastes. Household hazardous wastes make up only a small percentage of household waste, but they are a very serious problem.

When disposed of improperly, they post a threat to sanitation workers, landfill operators, animals, and the environment. Household hazardous discarded in the trash may ignite or explode in the landfill. Trash haulers have been injured from fumes and splashing chemicals. In the landfill, these wastes can leach into surface water and groundwater – the sources of most communities' drinking water.

Disposal of household hazardous wastes down the drain or in the sewage lagoon can also pollute drinking water. If it should leak through a pipe or leach into the ground, again it can contaminate water wells and other drinking water sources.

In septic systems and sewage lagoons, hazardous wastes can kill the organisms that make the systems work. This may cause untreated waste to drain into the ground and eventually seep into the groundwater. This sort of seepage can also result in contaminated drinking water sources and wells.

Sewage treatment systems and pipes have been damaged by household hazardous wastes, resulting in the release of raw sewage and chemicals into streams, rivers and other nearby water sources. Anything that is poured on the ground may spread or runoff the next time it rains or when the snow and ice melts in the spring.

WHAT MAKES A PRODUCT HAZARDOUS?

Products are considered hazardous is they have one or more of the following properties:

- * **Flammable/combustible:** Can be easily set on fire.
- * **Explosive/reactive:** Can detonate or explode through exposure to heat, sudden shock, pressure or incompatible substances.
- * **Corrosive:** Chemical action can burn or destroy living tissues (skin) or other materials when brought in contact.

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* **Toxic:** Capable of causing injury or death through ingestion, inhalation or skin absorption. Some toxic substances cause cancer and birth defects.

Because of the dangers they pose, household hazardous products require special handling and disposal. Public health and the environment are at stake, so it is important that every community and individuals take responsibility for the proper disposal and handling of household hazardous waste.

HHW REDUCTION, REUSE, RECYCLING AND DISPOSAL OPTIONS

The options of reduction reuse, recycling and disposal – listed in order of EPA’s preferred waste management hierarchy – are all important tools to safely manage household hazardous waste. The following information can help you determine the best ways to reduce, reuse, or dispose of common household products that may contain hazardous ingredients. Each community is different so check with nearby communities to learn about how they are handling the disposal of household hazardous waste or contact ADEC or EPA for more information about proper disposal and handling practices that can be used by your community.

➤ **Encourage Reduction at Home**

Consider having local residents and businesses reducing their purchase of products that contain hazardous ingredients. Provide community members with information about the use of alternative methods or products- without hazardous ingredients- for some common household needs.

➤ **Collection Options – Facilitate Reuse, Recycling, and Collection**

- **Permanent collection or exchange.** Establish an area or facility that collects HHW year-round. Some communities have exchange areas for unused or leftover paints, solvents, cleaning and automotive products, and other materials. By taking advantage of these facilities, materials can be used by someone else, rather than being thrown away.
- **Special collection days.** If your community doesn’t have a year-round collection system for HHW, establish designated days in your community for collecting solid waste and HHW at a central location to ensure safe management and disposal. Many communities host an annual spring clean-up day or week where local residents help clean-up the entire community and collect waste for proper disposal.
- **Local business collection sites.** If your community has neither a permanent collection site nor a special collection day, you might be able to make arrangements with local businesses to drop off certain products for recycling or proper disposal.

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➤ Use Proper Disposal Practices

Certain types of household hazardous waste have the potential to cause physical injury to trash collectors and landfill operators, contaminate septic tanks or wastewater systems if poured down drains or toilets, and present hazards to children and pets if left around the house. Some communities do allow disposal of household hazardous waste in trash, particularly those areas that do not yet have collection programs. Call ADEC or EPA for information on the proper disposal of household hazardous wastes. Follow their instructions to reduce the risk of products exploding, igniting, leaking, mixing with other chemicals, or posing other hazards at the landfill or when being shipped to a disposal facility. Even empty containers of household hazardous waste pose hazards because of residual chemicals that might remain; so empty containers should also be handled carefully and disposed of properly.

HOUSEHOLD HAZARDOUS WASTE DISPOSAL DO'S AND DON'TS

The products from a single home seem insignificant, but when all the homes in a community use similar products and dispose of them down the drain, pour them on the ground, or dump them in the sewage lagoon and landfill, the combined effects become a major problem. Leaching from landfills, dumps and sewage lagoons can contaminate groundwater with hundreds of pollutants. Soil and water can also be adversely affected.

Household cleaners and other products are a way of life in most homes. A typical home can contain 100 to 200 products used for cleaning, painting, lubricating, repairing, maintaining, disinfecting the house, yard, and taking care of vehicles.

When used according to label directions, most household products pose little hazard to people or to the environment. However, these products may become hazardous when used, stored, or disposed of carelessly. Improper use may cause toxic health effects. Improper storage may harm people or the environment. Some chemicals may cause water, soil or air pollution and may be toxic to people or animals when they are released into the environment. Improper disposal allows these materials to enter the environment directly. Water may be polluted or fish and wildlife killed, or chemicals may accumulate in the food chain of people and fish and wildlife.

HOW DO YOU IDENTIFY HAZARDOUS PRODUCTS?

Labels of hazardous products are required by federal law to list signal words. **DANGER** or **POISON** indicate that the product is highly toxic, corrosive or extremely flammable. **WARNING** or **CAUTION** indicates that the product is moderately or slightly toxic.

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A few precautions can prevent unused household products or containers from becoming hazardous wastes.

WHAT YOU SHOULD DO:

- Think carefully before buying a product. Do you really need it? Do you already have something similar? Can you substitute a less hazardous product?
- Buy just enough of the product to do the job.
- Look for a non-hazardous or less hazardous substitute for each job. Safer alternative products can be found in stores. Recipes for making non-hazardous household products can be found in booklets and brochures from the EPA and on the Internet.
- Read labels carefully before buying a product. Avoid buying products with labels containing the words *caustic*, *corrosive*, *danger*, *explosive*, *flammable*, *poison*, *toxic*, *volatile*, or *warning*. Hazardous product labels often list the principal hazards from using the products, such as “causes burns to skin and eyes,” or “vapor harmful if inhaled.” Make sure the product is what you want to buy and that you are not uncomfortable with the ingredients or the instructions. If label directions tell you to “avoid breathing vapors” or “avoid skin contact,” are you able and willing to follow these safety precautions?
- Follow use, storage, and disposal directions carefully. If directions are unclear contact the manufacturer before using.
- Buy household hazardous products only in the amount you need for the job at hand.
- Follow label directions on how to use a product, and use the recommended amounts. More is not necessarily better, and may be hazardous to your health.
- Avoid hazardous products if you are pregnant.
- Use safety equipment when the label recommends avoiding skin contact, eye contact, or inhalation of vapors.
- Use products up entirely. It is not hazardous waste until it is no longer wanted or usable.
- Share what you cannot use with a friend, neighbor, local business or organization.
- Recycle what can be recycled in your area (waste motor oil, transmission fluid, antifreeze, automotive batteries, button batteries, etc.). Contact agencies for information on locations in your area.
- Keep products in their original containers with readable labels. Safely store the remaining, unusable products in their original containers until a household hazardous waste collection is held or you can dispose of them properly.

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- Buy hazardous products in childproof packaging.
- Check to see if safety equipment is required when using a product. Make sure you have the proper equipment on hand or that you purchase it for use with the product.
- Avoid aerosol (spray can) products. Aerosol cans disperse the product in tiny drops that can be deeply inhaled into the lungs and quickly absorbed into the bloodstream. In addition, aerosols can ignite easily and the cans may explode when subjected to heat, high temperatures or pressure.

WHAT YOU SHOULD NOT DO:

- Do not leave products within reach of children or animals.
- Do not allow children to handle or dispose of household hazardous products or waste.
- Do not dump down sink, toilet, or in your yard, honeybucket, or sewage lagoon. It may be illegal and it contaminates the soil, water, and air.
- Do not burn used or leftover products or product containers. Burning may produce toxic fumes.
- Do not bury leftover products or containers in your yard or any place else.
- Do not put in the trash or pour down the drain or toilet before checking the disposal recommendation for that product.
- Do not reuse containers for other purposes.
- Do not mix unless instructed to do so by the label directions. Mixing products can cause explosive or poisonous chemical reactions. Even different brands of the same product may contain chemicals that should not be mixed together.
- Do not put products containing heavy metals (mercury, lead, nickel, chromium, cadmium, etc.) such as rechargeable batteries or thermometers in the trash.
- Do not put household hazardous wastes to enter open dumps, recycling equipment, incinerators, or burn boxes.
- Do not rely on the word “nontoxic” on a product’s label. A product that qualifies as nontoxic can still contain hazardous ingredients, but not in large enough amounts to cause an acute reaction. Chronic hazards often are not considered. Read the entire label for additional health warnings and use good judgment when choosing any product.

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USE IT SAFELY:

- Read all labels before using hazardous products, paying careful attention to proper use instructions and dangers.
- Twice as much does not mean improved results. Make sure you follow all instructions for mixing as stated in the directions.
- Do not eat, drink or smoke while using hazardous products. Traces of hazardous chemicals can be carried from hand to mouth. Smoking can start a fire if the product is flammable.
- Use products in well-ventilated areas to avoid inhaling fumes. Try to keep lids closed as much as possible while working with hazardous products to minimize the fumes. Work outdoors whenever possible. When working indoors, open windows and use an exhaust fan. Position the fan to draw air away from the work area to the outdoors. Take plenty of fresh air breaks. If you feel dizzy or nauseous, tightly seal the product, go outside, and take a break.
- Use protective gloves, goggles and respirators that are appropriate to the task if the product presents hazards to skin, eyes or lung.
- Clean up after using hazardous products. Carefully seal products and properly refasten all caps.

STORE IT SAFELY:

- Make certain all products are clearly labeled before storing them. If possible store in original containers with label intact. If the product container is deteriorating, place the entire container in a plastic bucket or glass jar with a tight-fitting lid. Surround it with a non-flammable absorbent, such as kitty litter, vermiculite, or floor dry, to absorb spills.
- Separate flammables, corrosives, and poisons and store them on separate shelves.
- Keep products out of the reach of children and animals. Store all hazardous products away from food items in locked cabinets or in cabinets with childproof latches. Keep your poison control number posted by the phone in case of an emergency.
- Make sure lids and caps are tightly sealed and childproof. Be sure to close lids tightly so that products will not dry out, evaporate, or leak.
- Keep products away from sources of heat, spark, flame or ignition such as pilot lights, switches and motors, oil stoves, furnaces, kerosene or electric heaters, and wood stoves. This is especially important with flammable products and aerosol cans.
- Store products containing volatile chemicals, or those that warn of vapors or fumes, in a well-ventilated area.

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- Store products in a cool, dry area to prevent corrosion. If a product container is beginning to corrode, place the entire container in a plastic bucket with a tight-fitting lid. Pack non-flammable absorbent, such as clay-based kitty litter, around the container. Clearly label the bucket with its contents and appropriate warnings.
- Never store rags contaminated with flammable solvents (such as wood stain, paint stripper and paint remover) because they can spontaneously start on fire. Follow the directions on the product label regarding the disposal of solvent-covered rags. If there are no directions, place the rags in an airtight, metal container and store the container outside your house away from other structures until it can be picked up with the trash or taken to the landfill for proper disposal. Another option is to allow the solvent to evaporate by hanging the contaminated rags outside, away from your home and sources of sparks. For additional information and directions, contact a member of your fire department or the Alaska State Fire Marshall's Office.
- Store gasoline only in safety-approved containers in a well-ventilated area away from all sources of heat, flame, or spark.
- Store liquid propane gas tanks outdoors and away from all sources of heat, flame, or spark.
- Know where flammable materials are located in your home and how to extinguish them. Keep a working fire extinguisher in your home.

CLEANING UP SPILLS:

These directions apply to paints, solvents and other household hazardous waste.

- Remove children and pets from the area where the spill occurred.
- Ventilate the air. If possible open all doors and windows in the area.
- Do not attempt to use cleaning products, such as bleach, ammonia, or solvents, to clean up the spill.
- At a minimum, wear the appropriate protective gloves for the product. Other safety equipment may be required for volatile solvents or corrosive products.
- Contain the spill to a small area by soaking it up with a non-flammable absorbent, such as kitty litter.
- Put the contaminated absorbent into a non-corroding container. A plastic bucket with a tight-fitting lid is recommended.
- Seal the container and label it with the product name, approximate amount of the product, absorbent material used, date, and the word DANGER or POISON.

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- Contact your landfill operator for information on how to dispose of the contaminated material or save it for a hazardous waste collection day.
- After you have absorbed the spill, thoroughly rinse the area several times with water and rags. Then wash the area carefully to remove remaining traces of the product. Never use household brooms or mops to clean the spill since they will become contaminated and must be thrown away.

SAFE DISPOSAL METHODS

- **Reuse** means to use the product again. Household solvents, such as paint thinner and paintbrush cleaner, can be used over and over. Let the used solvent sit undisturbed in a sealed container until the paint particles settle to the bottom. Carefully pour off the clean solvent and use it again. *Warning: Since these solvents are flammable, this activity should be done outdoors or with plenty of fresh air and adequate ventilation, and away from sources of heat, spark, or flame.* The sludge that remains after pouring off the clean solvent should be kept in the sealed container and saved for a household hazardous waste collection, or may be able to go to the landfill if it is completely dry (check with your local landfill operator).
- **Triple-rinse container** is the prescribed treatment method for empty pesticide containers. To triple-rinse, fill the container 1/4 full with water (or the solvent recommended on the product label), close it tightly, and shake or invert so the rinse reaches all inside surfaces. Repeat this procedure two more times. Rinse water should be used to make up the pesticide mixture or applied to the area you are treating following the same precautions used with the full-strength pesticide. Plastic containers should be punctured to prevent reuse. Discard the rinsed container with your trash, or see if the local recycling center will accept triple rinsed glass or plastic containers. *Warning: Do not triple-rinse pesticide containers in a household sink, or outside near drinking water wellheads. If you cannot reuse the rinse water, save un-rinsed containers for a household hazardous waste collection.*
- **Recycle** is the preferred option for any household hazardous product that can be recycled. Contact ADEC or your landfill operator for information about recycling in your community. Automotive service centers may accept used motor oil, auto batteries, antifreeze, kerosene, and transmission fluid.
- **Save for collection** indicates those products that should be saved for a household hazardous waste collection. Contact your landfill operator to find out when a collection may be held in your community. If you must wait for a collection, store products safely in their original containers with the labels intact.
- **Flush down drain** indicates that a product can be poured down the drain with plenty of water. Contact your water operator before pouring to determine if this recommendation is suitable in your community. If you have a septic tank, additional caution should be taken. Read the product label to determine whether the product might damage your plumbing or your septic system. If you are uncertain save it for a household hazardous waste

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collection. Never mix wastes while pouring them down the drain. Always pour small amounts at a time to avoid splashing, and flush with plenty of water.

- **Put in trash** indicates that a product is suitable for landfill disposal. Generally speaking, empty containers can be thrown away. Liquids should never be disposed of in the trash. Some products are acceptable for landfill disposal if they are hardened or dried up. Contact your landfill operator before throwing any hazardous product away.

The following table identifies a variety of products used in and around most homes. Because this list does not include every household product that might be considered a household hazardous waste, please contact your landfill operator or ADEC before dumping any unusual or questionable substance or product.

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HOW TO READ THIS CHART

These charts contain disposal recommendations for many household products. **Always remember, the best disposal option for most hazardous products is not to dispose of them at all!** Avoid buying hazardous products. If you must use them, use the products up, share them with a friend or neighbor, or find a business that can use any unused products. Among the items that should not be shared are those products with labels that are not readable.

CHART 1 - CLEANING PRODUCTS

Cleaners are often the most dangerous products in your home so take extra care in using, storing and disposing of them. When in doubt, call your landfill operator or Alaska Department of Environmental Conservation Solid Waste Division. In the table below, proper disposal of several cleaners is listed as “save for collection.” When saving, take extra care with lemon-scented products or those in colorful containers as they may unsafely attract the attention of young children.

Product	Properties	<u>Flush</u>	<u>Trash</u>	<u>Reuse or Recycle</u>	<u>Save for Collection</u>
Ammonia-based (window cleaner)	Corrosive Toxic	×			
Bleach-based (Clorox, tub and tile cleaner)	Corrosive Toxic	×			
Disinfectant (Lysol or Pine sol)	Corrosive Toxic	×			
Drain Cleaner (Liquid Plumber, Drano)	Corrosive Toxic	×			×
Furniture Polish	Flammable, Toxic				×
Toilet Bowl Cleaner	Corrosive Toxic	×			
Glass Cleaner	Toxic	×			
Glass Cleaner	Toxic	×			
Oven Cleaner	Corrosive, Toxic Flammable				×
Spot Remover	Corrosive, Toxic Flammable				×

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CHART 2 – AUTOMOTIVE & PETROLEUM-BASED PRODUCTS

Gasoline, used motor oil and automotive care products are just a few examples of the many potentially dangerous substances made for petroleum and related chemicals that are used on vehicles, heavy equipment, snow machines, four-wheelers, boat motors and other types of engines. Other products commonly used in homes are propane, diesel fuel, heating oil and kerosene. Play it safe by following the suggestions below when considering the “life” of the products you use.

Product	Properties	<u>Flush</u>	<u>Trash</u>	<u>Reuse or Recycle</u>	Save for Collection
Antifreeze	Toxic			×	×
Auto Battery	Corrosive, Toxic			×	×
Brake and Transmission Fluid	Toxic			×	×
Carburetor and Engine Cleaners	Flammable, Toxic				×
Degreaser	Flammable, Toxic				×
Diesel Fuel	Flammable, Toxic			×	×
Fuel Additives	Toxic				×
Gasoline	Flammable, Toxic				×
Kerosene	Flammable, Toxic				×
Motor Oil or Two-cycle Oil	Toxic, Flammable			×	×
				Do not mix with anything else	
Starter Fluids	Flammable				×
Windshield Washer Fluid	Toxic	×			×

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CHART 3 – HOME IMPROVEMENT & HOME REPAIR PRODUCTS

Many projects in the home result in an over-abundance of half-full paint cans and leftover cans of paint stripper and thinner. If you know you won't use up the extra amounts, consider donating the leftovers to friends, neighbors, the church or the community workshop so that disposal is not necessary. If you must keep a product for future use be sure to safely store it in a dry place away from extreme heat.

Note: Empty cans and/or dried lead-free paint can go in the trash.

Product	Properties	<u>Flush</u>	<u>Trash</u>	<u>Reuse or Recycle</u>	Save for Collection
Spackle, window glaze	Toxic		✗		
Adhesive and glue, water based	Toxic		✗		
Adhesive and glue, solvent based	Toxic Flammable		✗ Only if hardened in the can		✗
Paint or Primer, Latex without lead or mercury	Toxic		✗	✗	
Paint or Primer, Latex with lead or mercury	Toxic				✗
Paint or Primer, Oil based	Toxic			✗	✗
Paint Thinner or Other Solvents	Toxic Flammable			✗	✗
Paint Remover and Stripper	Toxic Flammable				✗
Putty, Grout, and Caulk	Toxic		✗		
Rust Remover	Toxic				✗
Wood Stain and Varnish	Toxic Flammable			✗	✗
Wood Preservative	Toxic				✗
Furniture Stripper	Flammable Toxic				✗
Household Bug Sprays and Repellents	Toxic		✗		
Mouse and Rat Poison and Baits	Toxic		✗		✗

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CHART 4 – HEALTH & HYGIENE PRODUCTS

The following chart lists a variety of bathroom and personal hygiene products that contain ingredients that require special disposal. Remember, these disposal methods are for *unused* portions.

Product	Properties	<u>Flush</u>	<u>Trash</u>	<u>Reuse or Recycle</u>	<u>Save for Collection</u>
After shave and Perfume	Toxic	×			
Cosmetics/make-up			×		
Hair Remover	Toxic	×	×		
Hair coloring and permanent solutions	Toxic	×			×
Nail Polish	Flammable, Toxic		×		
Nail Polish Remover	Flammable Toxic				×
Prescription Medicines	Toxic	×			×
Non-prescription Medicines	Toxic	×			
Insulin Needles and Syringes	Toxic		×		

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CHART 5 – MISCELLANEOUS PRODUCTS

The chart below represents a list of miscellaneous products that you may use in and around your home. Because this list does not include every potentially hazardous household product, be sure to contact your landfill operator before disposing of any unusual or questionable product or substance.

Product	Properties	<u>Flush</u>	<u>Trash</u>	<u>Reuse or Recycle</u>	Save for Collection
Aerosol cans	Explosive Flammable		×		
Ammunition	Explosive				×
Artist and Hobby Paint	Toxic Flammable			×	×
Batteries, alkaline	Corrosive		×		
Batteries, ni-cad or button	Corrosive, Reactive, Toxic			×	×
Fabric Dye, concentrated	Corrosive, Toxic				×
Fireworks (soak in water until very wet and saturated)	Explosive		×		
Fluorescent bulbs, tubes and ballast	Explosive			×	×
Mothballs	Toxic				×
Smoke Detector (take out battery)	Toxic		×		
Lighter Fluid and Charcoal Lighter	Toxic Flammable				×
Thermometer, mercury	Toxic				×
Honeybucket waste and chemicals (Dispose of only in sewage lagoon)	Toxic	×			×

METHODS FOR SAFELY HANDLING HOUSEHOLD HAZARDOUS WASTE

In most cases, the best thing to do with a leftover household product is to use it all according to the label directions or find someone who will use it. *Banned or restricted pesticides, old medicines and products whose safety instructions are no longer readable should not be used or shared.* For many household hazardous products there may be no way to safely dispose of them in your community. These products must be stored safely until your community holds a household hazardous waste collection day or sets up a collection area for these types of waste.

***How to Safely Package and Transport Household
Hazardous Waste to a Collection Site or Facility***

When transporting household hazardous waste to a collection site or facility, it is important to remember that these are hazardous wastes. There are no regulations governing how people should transport household hazardous waste, but you can take precautions to prevent accidents from occurring on your way to the collection site.

Materials Needed

- Protective gloves, such as nitrile or chemical-resistant gloves
- Cardboard boxes or other suitable containers for transporting bottles and cans

Safety Precautions

- Wear protective gloves when handling household hazardous wastes
- Do not bring children or pets with you to the collection site

Safety Procedures

1. Keep products in their original containers. **Do not mix products.**
2. Label materials that are not in their original containers. Every effort should be made to identify what is in each container. If you do not know a specific product name, identify it by product category, such as cleaning product or automotive product.
3. Check all containers. Make sure lids are tightly sealed.
4. If a container is leaking, this container should be placed within a larger, plastic container with a tight-fitting lid. A nonflammable absorbent, such as clay-based kitty litter, should be packed around the product to absorb any possible leaks. Label the outside container with the name of the contents and the date it was packed.
5. Place products upright in a cardboard box and secure them so that they do not tip over when hauling them to the collection site.

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6. Transport products in the back of a pickup truck or in a trailer or sled. Do not smoke while transporting hazardous materials.
7. Keep flammables out of direct sunlight and away from sources of heat, spark, flame, or ignition.

How to Safely Secure and Store Household Hazardous Waste for Hazardous Waste Collection

Some types and quantities of household hazardous products have no proper disposal options available so they must be saved for a household hazardous waste collection or taken to a disposal site/facility for proper disposal. In order to protect health and environment, safe and proper storage of household hazardous waste is essential.

A word of caution: *Storing household hazardous waste may cause harm to human health and the environment if the waste is not handled and stored properly! It is very important that all household hazardous wastes be properly stored until it can be properly disposed of a hazardous waste disposal site in your community or transported out of your community for proper disposal at facility equipped to handle and dispose of hazardous waste.*

Materials Needed

The following materials are needed if the product container is in a rusting metal or breakable container:

- Protective gloves, such as nitrile or chemical-resistant gloves
- A large, plastic container with a tight-fitting lid
- A non-flammable absorbent, such as clay-based cat box litter. ***Do no use flammable material such as newspapers or rags for packing. If they are packed too tight into a container it may lead to spontaneous combustion (fire).***

Procedures

1. Protect the product's label. Store substances in their original containers. If an item is not in its original container, clearly label the current container with the product's name, the date, and the words **DANGER** and **DO NOT OPEN**. If the item is unknown, clearly label the container with the current date and the words **UNKNOWN SUBSTANCE, DANGER** and **DO NOT OPEN**.
2. If the product is in a rusting metal or a breakable container, this container should be placed within a larger, plastic container with a tight-fitting lid.
3. A nonflammable absorbent, such as clay-based kitty litter, should be packed around the product container to absorb any possible leaks.

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4. Clearly label the outside container with the contents and date. Write the words **DANGER** and **DO NOT OPEN** on the outside container.
5. If the product is flammable, store it away from all sources of heat, spark, flame, or ignition. Remember these sources include water heaters, electrical appliances, light switches, pilot lights, wood and kerosene heaters, furnaces, engines and motors.
6. Store the container out of the reach of children and animals in a separate locked cabinet or other secure storage container or structure, such as a locked shed or fish tote.

How to Store and Recondition Gasoline for Reuse

Gasoline is one of the most dangerous substances found around the home. Yet, in rural communities it is one of the most common household hazardous wastes being stored in homes, sheds, arctic entries, and yards. All too often people forget it is highly flammable and extremely toxic. ***Never pour gasoline down the drain, on the ground, in the sewage lagoon, or in the garbage.*** Improper disposal of gasoline is a health and safety hazard, and threatens the environment.

As gasoline ages or sits outdoors, it tends to lose some of its desired ignition properties over time. Old gasoline used a full strength may account for sluggish behavior or temporary failure of any engine. Gasoline stored for long periods of time may become contaminated with dust particles, dirt, or water. It may also under a minor chemical change becoming “gummed up” or forming “varnish.” Old or contaminated gasoline can be reconditioned for use by following these procedures.

A word of caution: *Reconditioning gas may cause harm to human health and the environment if the described procedures are not followed very carefully.*

Reconditioning old gasoline is a good way to dispose of and recycle gasoline that may otherwise have been dump in the landfill or on the ground.

Materials Needed

- Protective gloves, such as nitrile or chemical-resistant gloves
- Protective eye goggles
- Thin cloth (cheesecloth) or paper coffee filter
- Safety-approved gasoline container

Safety Precautions

- Gasoline is highly flammable and toxic. Use extreme caution when handling.
- Recondition gasoline in a well-ventilated area to avoid breathing in fumes and vapors. If you can smell it, you are breathing in gasoline vapors and should increase ventilation.

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- Recondition gasoline in an area away from sources of heat, spark, flame, or ignition. The area should not be accessible to children or animals.
- Do not smoke or drink alcoholic beverages while working with gasoline.

Procedures to Recondition Old Gasoline

1. Filter gasoline into a safety-approved container through two layers of thin cloth or a coffee filter to remove any solids, dirt or other material that shouldn't be in the gasoline. The cloth or paper can be dried outside, away from your house and sources of heat, spark, flame, or ignition. It can then be disposed of with your trash that goes to the landfill.
2. Use the filtered gasoline by mixing with new gasoline at a 1:5 ratio (1 part reconditioned gasoline to 5 parts new gasoline).
3. An octane booster may also be added to the mixed gasoline to restore volatility. Octane booster can be bought a gas station or auto supply store.
4. Use the reconditioned gasoline as soon as possible.
5. Store any unused mixed gasoline in a safety-approved gas container in a shed or place away from children or heat sources.

Procedures to Recondition Gasoline Contaminated with Water

1. Water will sink to the bottom of the container. Use a mechanical siphon or pour as much gasoline as possible off the top, leaving water in the bottom of the container. The remaining water may be allowed to evaporate outside, away from your house, sources of heat, or areas that children can reach.
2. Gasohol (10% ethyl alcohol) or isopropanol (a fuel dryer) may be mixed in with the gasoline to break up small amounts of water. This prevents large quantities of water from entering an engine all at once. Follow directions for mixing found on the product label.
3. Use the filtered gasoline by mixing it with new gasoline at a 1:5 ratio (1 part reconditioned gasoline to 5 parts new gasoline).
4. Use the reconditioned gasoline as soon as possible.
5. Store any unused mixed gasoline in a safety-approved gas container in a shed or place away from children or heat sources.

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Many people look for ways to reduce the amount and toxicity of common household products used for cleaning. This can be done, in some cases, by using alternative methods or products without hazardous chemicals or ingredients. Although the suggested mixtures have less hazardous ingredients than many commercial cleaners, they should be used and stored with similar care.

- DO NOT** mix anything with a commercial cleaning agent.
- If you do store a homemade mixture, make sure it is properly labeled and do not store it in a container that could be mistaken for food or beverage or reached by young children.
- When making alternative products, mix only what you need for the job at hand and mix them in clean, reusable containers. This avoids waste and the need to store any cleaning mixture.

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HOUSEHOLD CLEANERS AND ALTERNATIVES

Product	Alternative
All-purpose Cleaner	Baking Soda. Dissolve 4 tablespoons baking soda in 1-quart warm water for a cleaning solution our use baking soda sprinkled on a damp sponge. Baking soda will clean all kitchen and bathroom surfaces.
Drain Cleaner	Prevention. To avoid clogging drains, use a strainer to trap food and hair, collect grease in cans instead of pouring it down the drain. Pour a kettle of boiling water down the drain weekly to melt grease that may be building up in the drain. Baking Soda and Vinegar. Put ½ cup baking soda and then ½ cup white vinegar down the drain and cover the drain. Let set for a few minutes, and then pour a kettle of boiling water down the drain to flush it. Plumber’s Snake or Plunger. Use either tool to help unclog sink drains and toilets.
Furniture Polish	Oil and Lemon Juice. Mix 2 parts mineral oil or vegetable oil and 1 part lemon juice. Apply and polish with a soft cloth.
Lime and Mineral Deposit Remover	Vinegar. Hard lime deposits around faucets can be softened for easy removal by covering the deposits with vinegar-soaked rags or paper towels. Leave rags or paper towels on for about 1 hour before cleaning. Cleans and shines chrome.
Metal Cleaner/Polish	Crème of Tartar. To remove stains and discoloration from aluminum cookware, fill cookware with hot water and add 2 tablespoons crème of tartar to each quart of water. Bring solution to a boil and simmer 10 minutes. Wash/dry as usual. Worcestershire Sauce. Clean and polish brass to a shine with a soft cloth dampened with Worcestershire sauce.
Oven Cleaner	Prevention. Line bottom of oven with tin foil. Baking Soda or Salt. Clean spills as soon as the over cools using steel wool and baking soda. For tough stains, add salt (do not use this method on self-cleaning or continuous cleaning ovens).
Glass Cleaner	Vinegar or Lemon Juice. Mix 1 tablespoon of vinegar or lemon juice in 1 quart of water. Spray on and use newspaper to wipe dry.
Toilet Bowl Cleaner	Baking Soda or Vinegar. Use a toilet brush and baking soda or vinegar. This will clean but not disinfect.
Rug Deodorizer	Baking Soda. Deodorize carpets by sprinkling with baking soda. Wait at least 15 minutes and vacuum. Repeat if necessary.
Spot Remover	Club Soda. Rinse or sponge blood and chocolate stains immediately with club soda. Repeat as necessary. Wash as usual. Crème of Tartar and Lemon Juice. To remove ink stains, put crème of tartar on the stain and squeeze a few drops of lemon juice over it. Rub into the stain for a minute, brush off the powder, and sponge with warm water or wash as usual.

IDENTIFYING HAZARDOUS WASTE AROUND YOUR HOUSE

The following checklist will help you become more familiar with household hazardous wastes. Use these questions as a guide to reduce unnecessary purchases of hazardous products.

- Is the product flammable? Is it corrosive? Is it poisonous?
- Can you use up the total quantity?
- Can the product be safely disposed of? Not all can.

If you are uncertain about a product you want to use, ask for a Material Safety Data Sheet (MSDS) on the product. Federal law requires manufacturers to provide these forms, which describe hazards associated with a specific product. This information must be given to any one requesting the information.

HANDLING HAZARDOUS MATERIALS AND HAZARDOUS WASTES

Most hazardous materials can be safely handled without adverse effects, provided adequate protective measures are taken.

- Wear the proper personal protective equipment, including glasses or goggles to protect your eyes from splashes or noxious fumes.
- Use rubber gloves, rubber boots and coveralls to prevent skin contamination.
- A respirator or dust mask may be needed to protect against respiratory system contamination. Work in well ventilated areas.
- Always read the product label carefully and completely.
- Never mix chemicals together.
- Keep products tightly sealed, away from children, and in their original containers.

REDUCING HOUSEHOLD HAZARDOUS WASTES

The best way to reduce the volume of wastes you generate is to *buy only the amount you need*. The big size may seem cheaper, but often you are left with an unwanted, unused product and a disposal problem. Reducing your reliance on chemical products now will help ensure a cleaner environment for your children and generations to come.

- Do not overuse chemical products; twice the amount does not mean twice the result.
- Avoid using spray cans if possible. Most spray can products (which are often expensive, flammable and sometimes affect the atmosphere) are available in some other packaging.
- Substitute less toxic or non-toxic products when available. Vinegar and baking soda make excellent substitutes for drain openers and commercial cleaning products.



WHAT IS A HOUSEHOLD HAZARDOUS MATERIAL?



Read the label... If the product that you're using has any of the following characteristics, it is a hazardous material:

- ⊗ **Corrosive:** A substance that can "eat away at" storage containers or damage or burn human skin if it is touched. Examples of products with corrosive ingredients include:



Ammonia-based cleaner (i.e., Parson's)
Abrasive Cleaners (i.e., Ajax, Comet)
Car, boat & four-wheeler batteries (wet cell)
Oven & toilet bowl cleaners (i.e., Easy Off, Vanish)

- ⊗ **Flammable:** A substance that catches fire easily. They evaporate quickly and explode easily. Examples of products with flammable ingredients include:



Nail polish remover and hairspray
Paint remover, paint thinner, varnish
Gas, diesel fuel, and motor oil
Enamel and oil-based paints

- ⊗ **Toxic:** A substance that is poisonous and potentially harmful to human health. It can enter your body through your mouth or if you breathe it or it gets onto your skin. It can cause death if swallowed. Harms or kills fish and wildlife. Examples of products that contain toxic ingredients are:



Mice or rat poison (i.e., D-Con)
Anti-freeze and used motor oil (i.e., Prestone, Heet)
Furniture polish
Oven and drain cleaners (i.e., Drano, Easy Off)

- ⊗ **Reactive:** A substance that can react with air, water, or other substances to cause rapid heating or explosions. Examples of products with reactive ingredients include:



Ammunition
Welding materials
Ammonia
Liquid or powdered bleach (i.e., Clorox)

Question: If you have two good cleaners, can you mix them together and make one GREAT cleaner? NO!!!

HOW DANGEROUS IS HOUSEHOLD HAZARDOUS WASTE?

How can we protect our health, water, land and subsistence
resources from becoming contaminated?
Here are some of the dangers!

<i>PRODUCT</i>	<i>PRODUCT CATEGORY</i>	<i>HEALTH IMPACT</i>	<i>ENVIRONMENTAL IMPACT</i>	<i>DISPOSAL METHOD</i>
	<i>Solvents</i> paint thinners paintbrush cleaners, nail polish remover, glues, etc.	Affects respiratory system, nervous system, and skin. Ingestion can be fatal.	Toxic to water life. Ground- water contaminant.	Take to community collection site, or give to someone else to use up.
	<i>Paint</i> Marine, enamel, or primer, stains, varnishes, shellacs, and lacquers	Affects respiratory system, nervous system, and skin. Ingestion can be fatal.	Paints contaminate soil and water.	Take to community collection site, or give to someone else to use up.
	<i>Household Cleaners</i> Detergents, drain cleaners, oven cleaners, toilet bowl cleaners, bleach	Affects respiratory system, nervous system, and skin. Ingestion can be fatal.	Can contaminate soil and water.	Take to community collection site, or give to someone else to use up
	<i>Auto Products</i> Gasoline, motor oil, used motor oil, antifreeze, auto battery	Affects respiratory system, nervous system, and skin.	Waste oil contaminates soil and water, and is deadly to plants, waterfowl and other wildlife.	Take to a community collection site. Burn used oil in an approved burner.

**DO NOT TAKE THESE PRODUCTS TO THE DUMP OR PUT THEM IN
YOUR GARBAGE – THEY ARE DANGEROUS. CONTACT LANDFILL
OPERATOR FOR INFORMATION ON PROPER DISPOSAL.**