



Indiana Farmstead Assessment for Drinking Water Protection

Hazardous Waste Management



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Introduction

Waste products are the result of daily living. While many types of waste are harmless, a significant number of waste products are potentially hazardous to our health and the environment. Waste products are considered hazardous if they are flammable, toxic, corrosive or react with other chemicals. Table 1 contains a listing of some common hazardous wastes found around the home and farmstead. This factsheet provides guidelines for proper handling and disposal of these wastes to prevent drinking water contamination.

Table 1. Examples of home and farm hazardous wastes

solvents	spot removers	ash from burned trash
pesticides	dry cleaning fluids	car batteries
oil based paint	used motor oil & filter	gasoline
lead based paint	shoe and leather polish	asbestos
stains and finishes	flea powder	furniture polish and wax
paint stripper	photography chemicals	antifreeze
wood preservatives	pool chemicals	turpentine
tires	kitchen and bathroom cleaners	sludge from burning waste oil

Basic guidelines

Inventory your hazardous materials

Take an inventory of hazardous wastes you use or store. Know where they are located and how much you have. Keep the inventory up-to-date. A set of well maintained records are a valuable asset in case of a fire or other event where wastes may be released to the environment. If it is difficult to determine what is hazardous and what is not, consider everything hazardous and attempt to recycle or substitute a less toxic product.

Prevent pollution before it starts

Look for products that can do the same job with less hazardous materials. Specific examples include switching to

latex paint and eliminating the need for paint thinner, and looking for biodegradable solvents to replace chlorinated types. Some items such as used motor oil, antifreeze and lead acid batteries can be recycled. Try to return spills and drips to their original use or absorb them with floor dry or cat litter. Avoid leftover hazardous waste by good management practices such as collecting solvent to use again. Buy only the amount of material you can use up quickly to avoid storage problems. If you can't use all of the product, you will need to research how to dispose of the material properly in your area, and take action by bringing it to a special collection event or arrange for disposal through a private hazardous waste disposal firm.

Use and store products safely

Read product labels closely. They give information on safe use, what to do in case of accidents and how to store material properly. All materials need to be locked away from children. Contain unusable leftovers for proper disposal. Never store hazardous materials in food containers to avoid poisoning accidents. Inspect storage containers frequently for leaks.

Protect your well and water resources

Use and store hazardous wastes well away from water resources to prevent accidental spills or leaks that could cause contamination. Do not store any chemical or item that contains chemicals (e.g., battery) inside a well house. Likewise do not mix chemicals or clean containers, brushes, etc., near the well or surface water. Do not use abandoned well pits for disposal or storage of chemical containers or other hazardous waste. Seal floor drains in workshops or garages where hazardous materials are spilled on the floor.

Laws regarding hazardous waste disposal

Hazardous waste generated from farms must be managed in accordance with local, state and federal laws. Once common practices are now being restricted. Don't:

- pour hazardous waste on the ground or down the drain;
- put trash in "your own landfill" or ditches;
- burn hazardous waste; or
- dispose of hazardous material at a sanitary landfill or through a garbage service.

All these methods can result in groundwater contamination. They also pose a health and fire hazard because toxins can be inhaled and some chemicals react with each other.

A specific state law that impacts hazardous waste management is the Indiana Responsible Property Transfer Law which requires owners to give legal disclosure of underground fuel tanks, hazardous waste spills, hazardous waste storage areas, open dumps and other information when the property is sold. Protect your well and property values by disposing of hazardous waste properly and keep up-to-date documentation of your actions.

Solid waste management districts

In 1991, the Indiana General Assembly created the mandate for solid waste management districts (SWMDs). This action was in response to overcrowding at existing landfills and a need for greater control over the toxicity of wastes going into landfills. SWMDs are dedicated to reducing the solid waste stream entering landfills by 50 percent by the year 2000. Sixty-two districts cover the state. Funding comes primarily from local property taxes and landfill tipping fees.

Your local SWMD may be listed in the telephone directory under county services. You can also contact the Indiana Department of Environmental Management's Office of Pollution Prevention and Technology Assistance (IDEM-OPPTA) at 800/451-6027 for the location and telephone of your local SWMD.

How to properly dispose of hazardous waste

Disposal and recycling opportunities vary across the state; for specific disposal and recycling opportunities in your area, contact your local solidwaste management district, county extension office or IDEM-OPPTA. IDEM-OPPTA is non-regulatory and provides guidelines for what to do with household and farm hazardous wastes.

Used motor oil

You may recycle used motor oil at your local agricultural chemical dealer or oil change station, or burn it in an approved furnace for heat. If the oil is contaminated with anything, such as solvent, kerosene or other materials, it must be treated as a flammable hazardous waste and taken to a special collection site. Land spreading of waste oil is not allowed.

Motor oil filters

Drain filters of used oil by puncturing the anti-drain back valve on the flat bottom end. This will break the vacuum and allow the oil to drain into your pan. If the filter doesn't have a back valve on the bottom, try puncturing a hole in the dome end. Place the punctured end down and drain the filter for 12 hours. The filter will drain best when it is still warm from the engine. Wrap the drained filter in newspaper and place it with the regular trash to be taken to a landfill. Some places recycle filters.

Antifreeze

Antifreeze contains ethylene glycol and is poisonous to humans and animals. Used antifreeze that is not contaminated with oil or other materials can sometimes be recycled. Check at your local service stations. Contaminated antifreeze must be treated as a hazardous waste. Do not put antifreeze down a septic system. It kills the organisms that break down wastes and reduces the system's efficiency.

Car batteries

Each car, ATV, motorcycle or boat battery can contain 18 pounds of lead and one pound of sulfuric acid. Recycle batteries at local automotive stores or recycling centers. If you buy a new battery, you can trade in the old battery.

Tires

Disposal of used tires is difficult since there are few options currently. Although it has been a common practice, burning tires on the farm is unsafe. A tire burns very hot for a long time and releases toxic gases. Tires should be returned to the equipment/vehicle dealer who will chop them and send the material to either a landfill or a utility where tires are burned with coal to produce energy. The dealer will charge a disposal fee based on the size of the tire.

Old fuels

If fuel such as diesel, gasoline, kerosene or fuel oil, can't be used up, take it to a special hazardous waste collection day or dispose of through a private hazardous waste firm.

Solvents

Parts washing solvents, cleaning solvents and similar materials must be brought to a special collection day or disposed of through a private hazardous waste disposal company. Renting a parts washer can be a good option for some operations.

Solvent rags

Rags soaked in stain, linseed oil or other flammable materials should be linedried outside and, when totally dry, taken with other trash to a landfill. Never leave rags soaked in flammable materials in a pile because they might ignite.

Acids and bases

Items like muriatic acid, battery acid, nitric acid and hydrofluoric acid can cause severe eye and skin damage. Try using it up according to label directions. If not, acids and bases need to be brought to a special collection day or disposed of through a private hazardous waste company.

Wood preservatives

Products used to protect wood are usually flammable, and some are also poisonous. Use these products up or take to a special collection day.

Paint, varnish, stain, paint stripper

Latex or water based paint and stain, less than ten years old, can be dried out with an equal amount of clay cat litter and taken to a landfill or put out for trash pickup. Oil based products are flammable and need to be taken to special hazardous waste collection day, as does lead paint, turpentine, paint thinner, varnish and filters from a paint booth.

Recyclable trash

Newspapers, tin, aluminum cans, plastics 1-9, glass food or beverage containers, cardboard, and magazines are recyclable. Items like hot water heaters, ovens, washers, dryers, old fence and other types of scrap metal can often be recycled at a local scrap yard. Call to see what they will accept. Leaves, grass and other organic matter can be composted. Ask your local Cooperative Extension office or SWMD for publications to help you get started.

Ash and sludge

Ash and sludge from waste oil burners may contain heavy metals. Take this material to a landfill for disposal.

Toxic household trash

Hazardous materials generated from your house, such as flea powder, turpentine and oil based paints should be brought to a special hazardous waste collection event.

Asbestos

Asbestos fibers that can be inhaled or ingested are a toxic material that requires careful handling. Many types of asbestos containing materials have very little potential to yield fibers in a powder or dust during removal and disposal. For example, floor tiles, asphalt-based siding and roofing materials may be removed and sent to a landfill as solid waste; but transite or slate board roofing is dangerous and must be packaged, labeled and taken to a landfill that accepts this material. If other asbestos containing materials are in good condition--not peeling, cracking or crumbling--leave them alone. If removal is necessary contact your local solid waste management district or the IDEM Office of Solid and Hazardous Waste Management (800/451-6027) for guidelines.

Veterinary medical waste

Check to see if you can return unused medical waste like antibiotics to your veterinarian. Call your extension educator for other options. Most special collection days for hazardous waste do not take medical waste. Place items like syringes in a heavy plastic container with a lid, marked clearly, and take to a landfill.

Open burning

Indiana has a ban on open burning with the exception of vegetation from fence row cleaning or a similar activity. Local ordinances may further restrict open burning.

Pesticides and banned pesticides

<http://www.ecn.purdue.edu/SafeWater/farmasyst/surveys/factsheets/hazardous5.htm>

Take pesticides that can't be used up to a special hazardous waste collection event or dispose of through a private hazardous waste firm. Old pesticides that have been in storage for many years should be placed in secondary containment until they are properly disposed. Many of the older pesticides are no longer registered for use. Spills of these chemicals can result in expensive cleanup.

Dead animals

Bury animals far from wells, ditches, creeks, rivers and other bodies of water for public health and pollution reasons.

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Contacts and References

Regulations and Disposal of Hazardous Waste

Indiana Department of Environmental
Management (IDEM)
P.O. Box 6015
Indianapolis, IN 46206-6015
800/451-6027

Specific departments:

- *Office of Pollution Prevention and
Technology Assistance has list of local
hazardous waste districts; hazardous
waste contractors.
- *Office of Solid and Hazardous Waste

Pesticide Disposal

Office of Indiana State Chemist
1154 Biochemistry Bldg.
West Lafayette, IN
47907-1154
765/494-1492

Toxicology

Indiana State Board of Health (ISBH)
1330 W. Michigan Street
Indianapolis, IN 46206
317/383-6100

Indiana Poison Control Center
800/382-9097

What to read about...

Recycling

- The Indiana Recycling Handbook (1)

Yard Waste

- AY-2 Don't Bag It (2)
- ID-182 Managing Yard Waste: Clipping and Compost (2)
- V-HO-13 Yard Recycling (9.5 minute video) (2)

Law

- PPP-36 Pesticides and the Legal System (2)

Sources:

The following numbers coincide with the numbers listed above.

1. Indiana Recycling Coalition
P.O. Box 6357
Lafayette, IN 47903
765/283-6226
2. Purdue University Cooperative Extension
offices or Media Distribution Center
310 S. 2nd Street
Lafayette, IN 47901-1232
765/494-6794 or 1-888/EXT-INFO

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For Survey 5: click here -

[Hazardous Waste Management Survey](#)

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