



## Household Hazardous Waste: the EASY Solution

*Many people are unaware of the toxic, poisonous or harmful chemicals right in their own homes.*

Numerous every-day items found in homes can pose substantial threats to human and environmental health. Common household hazardous materials include:

- Home cleaning solutions and disinfectants;
- Drain cleaners
- Aerosol spray products;
- Pesticides, herbicides, and fertilizers;
- Paints and solvents;
- Pool, spa, and art chemicals
- Batteries;
- Automotive fluids like motor oil, brake fluid & antifreeze;
- Car batteries and tires;
- Cell phones; computers; small electronics;
- Compact florescent light (cfl) bulbs;
- Thermometers;
- Sharps;
- Propane tanks from barbecue grills,
- **Radioactive waste** (some home **smoke detectors** are classified as radioactive waste because they contain very small amounts of a radioactive **isotope** of **americium** - see: [Disposing of Smoke Detectors](#)).

Household hazardous waste (HHW) is federally designated material that poses "*an unreasonable threat to the public and the environment.*" It is unwise and **illegal** to improperly dispose of toxic consumer products, yet we routinely wash them down the drain, put them in storm sewers or send them to the landfill with our household trash. If not disposed of correctly, many common household products we use in our home and yard can harm people, fish, wildlife, plants, and surface or ground water, which is our drinking water. Products with the words "warning," "caution," or "poison" on the label are toxic, and should never be dispose of down the sink, on the ground, in the garbage can (which goes to the landfill), or down a storm drain (which goes to lakes and streams).



A *2008 Recycling Baseline Study* by the Muskegon Area Sustainability Coalition reported that the percentage of trash haulers' customers that participate in the home pick-up recycling program is only an average of 25-40%. The percentage of individuals who properly dispose of household hazardous waste is even less, because many people do not understand the seriousness of hazardous materials and proper disposal means transporting the material to a drop-off site.

To view the entire recycling study, visit [www.muskegonasc.org](http://www.muskegonasc.org)

***There are several things you can do to reduce the risks associated with household hazardous waste:***



Don't purchase toxic consumer products. Instead, choose a safe alternative.



In cases where you must use household chemicals buy smaller quantities and use them up completely.



Ensure safe disposal of the materials. Remember, proper disposal is not just good for our health and environment, it's the law!



Trade in the old for the new. Buy products from vendors who will take your old product. For example, Batteries Plus will accept spent batteries from customers. Home Depot will take cfl light bulbs. Trade-in is the preferred disposal option for car batteries; tires, and automotive fluids; printer ink cartridges; cell phones; and other items. (see also full recycling guide).



Donate it. Some items can still have a useful life with someone else. As examples, Every Woman's Place and Volunteer Muskegon accept working cell phones. Unused paint can be donated to Habitat for Humanity or the Civic Theater. Goodwill Industries takes old computers and resells or recycles them.

***Safe Disposal Options***

## Muskegon County Dept of Public Works

The Muskegon Department of Public Works offers disposal service for certain materials. There is no charge, but the drop-off times are limited. The goal of the program is to keep hazardous materials from the landfill, dispose of them in a safe manner, and protect the environment.

Disposal site is located at the rear lot of Vector Control, 1300 Keating in Muskegon. Regular hours are the 2<sup>nd</sup> and 4<sup>th</sup> Friday each month, May thru October; from 1:00 to 2:30 pm. Appointments are made only for those who are not able to wait for a normal collection day.

Muskegon County Solid Waste: 231-724-6003. website: [www.co.muskegon.mi.us/hhw](http://www.co.muskegon.mi.us/hhw)

Accepted materials include:

- Mercury or mercury containing devices
- Oil, Fuels, Petroleum products, Antifreeze
- Pesticides, Insecticides, Herbicides
- Aerosol cans
- Acids
- Bases
- Other products with approval



Note that **paint** is not hazardous and is not accepted at these collections. Paint may be disposed of in your regular garbage as long as the paint is **solidified or dried**. Paint may be solidified by adding kitty litter, oil dry, sand, sawdust or other media to the can and left open to dry. Paint may also be spread on cardboard or other disposable surface and dried prior to disposal. It is always advisable to solidify or dry the paint in a well ventilated area away from animals or children.

## Public Health Muskegon County

Public Health – Muskegon County accepts mercury thermometers, cfl bulbs, and batteries, which may be dropped off at the Health Promotion office. Rechargeable batteries, as well as non-chargeable batteries such as AA, AAA, C, D, 9V, and button batteries; battery packs from cameras, cell phones, computers, and power tools are accepted.

Location: 209 E.Apple Ave  
Phone: 231-724-6246  
Website: [www.muskegonhealth.net](http://www.muskegonhealth.net)



Pictured: Muskegon County Public Works Household Hazardous Waste disposal site; Greg Leverage is wearing protective gear to minimize the dangers of handling toxic waste.



## Muskegon Conservation District

The Muskegon Conservation District is a drop-off location for some common household hazardous waste items including: batteries, cell phones, ink cartridges, as well as small electronics.

Location: 940 Van Eyck (off Apple Ave)

Phone: 231-773-0008.

Website: [www.muskegoncd.org](http://www.muskegoncd.org)



### A note about properly handling HHW:

To minimize risk from accidental spills, or dangerous mixing of materials take the following precautions:

- Keep products in original containers when possible. If a product does not have its original label, label it yourself if you're sure of the contents to help promote safe disposal.
- Never mix products together. Dangerous reactions can occur when some materials are mixed.
- Make sure products are properly sealed to prevent leaks and spills. If a container is leaking, secure it in a secondary container.
- Pack containers in sturdy boxes in the back of your vehicle, away from driver, passengers and pets. Cardboard boxes work well.
- Store products in a safe place, away from children, pets and heat, sparks or flames.

### *For More Information*



**Green Consumerism** Instead of buying expensive and toxic consumer products with chemical additives, choose a safe alternative instead; and save money as well.

**Why "go green"?** Some positive attributes of green cleaners:

1. **Skin Irritation:** Many cleaning products contain chemicals that may cause redness or swelling of skin.
2. **Minimize Concentrates:** Formulate your own safe and natural concentrates. Chemical concentrates can be a danger. It is important to NEVER mix chemicals. Bleach is toxic when mixed with many things, including bleach and vinegar. Accidental mixing of chemical cleaning products can cause accidental asphyxiation.

3. **Fragrances:** Often, chemical based aroma is added to cleaners to mask odor. Fragrance additives have little cleaning value, but some users like it; however, a basic principle of pollution prevention is to avoid unnecessary additives, which can be an irritant. Use a natural option if fragrance is important to you.
4. **Dyes:** Color additives contribute no cleaning value, and are for aesthetics and marketing purposes. Again, a basic principle of going green is to avoid unnecessary additives.
5. **Reduce Disposable Packaging:** Consumer packaging materials make up a large percentage of landfill waste. The EPA's recommended approach to managing solid waste is, first, reduce packaging of products and, second, recycle packaging materials. Making your own cleaning products can reduce landfill waste.
6. **Potential Air Pollution:** Products may contain volatile organic compounds (VOCs), which can escape to the atmosphere and react to form smog. Smog and other atmospheric pollutants have been shown to cause irritation of the eyes, nose, throat, lungs, and to cause asthma attacks. Many state and local authorities have restrictions on the use of VOCs.
7. **Potential Ground Water Pollution:** Concentrated chemical solutions that are rinsed into your septic system escape to the ground, and may become in contact with your ground water.

**Cleaning Products** are often expensive, and full of harsh chemicals. There is a vast amount of information about how to keep your home clean, without subjecting yourself and your family to chemicals. Here are some basic tips on getting started.

**1) Stock up on simple essentials.** The basic items include baking soda, vinegar, mild soap, natural detergent, and natural deodorizers, such as lemon juice or other essential oils like cinnamon. Mineral oil or olive oil can be used interchangeably. Detergents are not totally non-toxic; check the signal word on the bottle, and avoid any sterner warning than "caution" for the safest detergents.

Vinegar is a great acidic cleanser that dissolves icky buildups and serves as a great disinfectant. The standard solution you find at the supermarket has been shown to kill 99% of bacteria, 82% of mold, and 80% of germs. Baking soda is an alkaline mineral that cuts through grease and neutralize acidic odors. Purchase your own spray containers to reuse.

**2) Use common scents.** "Fragrance," when listed on a product label, should be a big red flag, as manufacturers commonly use this term on an ingredient list to disguise their use of chemicals (including phthalates, a hormone disruptor). Rather than buy some manufactured "scent," consider citrus and herbs or an essential oil like lavender. Also pay attention to the nature of the stink, and get to the source. For alkaline odors, use an acid like vinegar, for acidic odors, use baking soda.

**3) Harness the sun.** On a bright spring or summer day, hang as much of your sheets, upholstery and other fabrics outside on a clothesline. The sun naturally kills dust-mites and is a natural antibacterial agent.

**4) Elbow grease.** Put some muscle into it. 75 years ago our great-grandparents kept their home perfectly clean without any of these crazy chemicals that clutter the cupboards of Americans today. How? By using the basic, simple ingredients above, and scrubbing away.

**5) Follow a recipe.** The following Green Cleaning Options are recipes and tips to help you create a safer home. Label your spray bottles if desired, or try a color code system.

### Green Cleaning Recipes

**Multi-Purpose Cleaning Solution:** Pour into a spray bottle ½ cup of distilled white vinegar, and add water. The amount of water depends on how big of a job you have. Full strength vinegar can be used for big jobs; but for normal cleaning, add up to a quart of water (of just fill your spray bottle).

**Disinfectant:** If you need a stronger disinfectant for kitchen cutting boards, work surfaces, and bathroom fixtures, use high strength vinegar, followed by a spray of hydrogen peroxide. Use the regular 3% bottle of hydrogen peroxide that is available at any store, and pour it into a spray bottle. After wiping down with multi-purpose vinegar solution, spray with hydrogen peroxide for additional germ-killing action without strong chemicals; wipe clean.

**Stain Fighter:** Make a paste of 3 parts baking soda and 1 part water. Apply to stained surface and leave for a few minutes, then scrub or wipe clean.

An equal part of baking soda to vinegar is another alternative (this is a safe combination; there will be a foaming fizz).

**Carpet Stain:** Combine 2 tablespoons of your natural laundry detergent to 3 tablespoons of vinegar to 1 quart of water; blot clean with cloth.

**Glass Cleaner:** Combine 1 quart warm water with ¼ cup of white vinegar and 2 tablespoons of lemon juice into a spray bottle. Additionally, you may add a drop or two of essential lemon oil for a more pleasing aroma. Use newspaper to wipe; a squeegee helps also. Stronger vinegar solution may be necessary for dirty jobs.

**Abrasive Scrub:** Use baking soda alone. Or, a non-chlorinated scouring powder such as Bon Ami is chemical-free alternative.

**Degreaser:** Use full strength vinegar to clean a greasy mess; add a dash of salt for additional abrasive action if necessary.

**Drain Cleaner:** Pour some baking soda into drain (up to 1 cup) then pour an equal amount of vinegar down the drain. Foaming action will occur.

**Air Freshener:** Several methods of natural room fresheners exist.

- Soak a cotton ball with essential oil, or vanilla extract, or any flavor extract, and place in a small dish for use in your car, home or refrigerator.
- Baking soda in a dish is believed to help with odors in fridge.
- To eliminate smelly cooking odors, boil 1 tablespoon of vinegar in a cup of water.
- Simmer cinnamon and cloves in water.
- Sprinkle carpet with baking soda, let stand for 15 minutes, and vacuum.
- Baking soda sprinkled onto a smelly pet can be brushed safely into the fur to help remove odor.

**Furniture Polish:** Combine ½ cup lemon juice with 1 teaspoon of mineral oil; rub into grain (use center of cloth) then buff (with clean corner of cloth).

An alternative wood polish is to combine ¾ cup mineral oil, ¼ teaspoon vinegar, and ½ teaspoon lemon oil. This recipe requires more shaking, but the higher oil content delivers a shiny gloss.

**Leather Cleaner:** Mix ½ mineral or olive oil and ¼ cup vinegar, and rub into leather. Do not use on suede.

**Soap:** Don't underestimate plain ole soap. The Environmental Protective Agency recognizes soap as a legitimate disinfectant.

So let's keep strong toxic chemicals from going down the drain, or into the landfill where it can contaminate the environment, air, and ground and surface water.



**The U.S. Environmental Protection Agency (EPA)**

**Challenge:** Each year, Americans generate millions of tons of waste in our homes and communities. EPA is challenging all citizens to conserve our natural resources by committing to **reduce, reuse, and recycle** at home, in your community, and at the office. Learn what you can do to make a difference. The EPA website offers much more information.

[www.epa.gov/waste/conservematerials/hhw.htm#collect](http://www.epa.gov/waste/conservematerials/hhw.htm#collect)