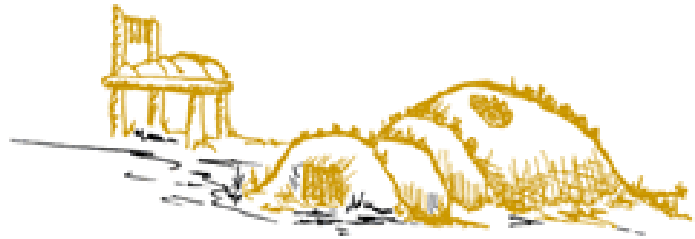




# Household Hazardous Wastes (HHW)



## In this handout:

- ❖ What are household hazardous wastes?
- ❖ How can you recognize hazardous products?
- ❖ Examples and categories of hazardous products
- ❖ Reducing household hazardous wastes
- ❖ Discarding Hazardous Products in a Village
- ❖ Safer alternatives to hazardous household products
- ❖ Important tips when handling, using, and storing HHW
- ❖ Cleaning up spills and safety gear
- ❖ Starting a household hazardous waste collection program
- ❖ Photos of a household hazardous waste collection center
- ❖ Publications
- ❖ Contacts and Phone Numbers
- ❖ Emergencies
- ❖ How can I get additional information about hazardous wastes?

## What are household hazardous wastes?

Hazardous household products have the potential to harm our subsistence foods, our people, and our environment. We believe as Native people, we *are* our environment and subsistence foods. Hazardous products are in our Villages because we purchase them from our stores, or we bring them from hub cities. We use them for cleaning countertops, stripping and painting our boats, and lubing our 4-wheelers. Household hazardous products are in all of our communities.



Every day, there is probably someone in your Village who is using a hazardous household product.

Once they are in a Village, household hazardous products are there to stay. They are a problem because they can be harmful when they are used, and when they are *not* used - when they are thrown out. If you decide to discard a household hazardous *product* or material, the agencies call it a "household hazardous *waste*".

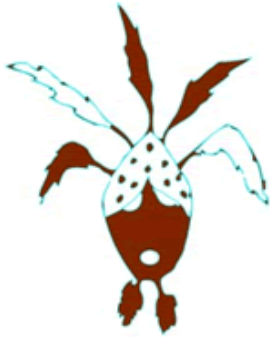
Household wastes, construction wastes, or any kind of wastes are named "hazardous" by agencies if they:

- ✓ Can burn or flame up easily,
- ✓ Corrode (like a battery) or irritate the skin,
- ✓ Have the potential to generate heat or explode, or
- ✓ Are poisonous to humans and animals.





When you see a "hazardous waste" grant or a "household hazardous waste" grant, the wastes will probably have to fit one of these definitions to get any money. Remember though, your Village can still decide how to define hazardous wastes for your community. For example, plastics and Styrofoam can be hazardous if they are burned in a burn box, pit, barrel, or open trench. Even though the smoke can be toxic, they are not listed as "hazardous wastes" by agencies. But if you burn them, these wastes are still hazardous to community health.

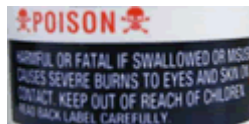


## How can you recognize hazardous products?

Products containing hazardous substances are required by federal law to be properly labeled. Labels on hazardous products use a rating system of four "signal" words. These words are listed below from "most hazardous" to "least hazardous".

### Signal Words

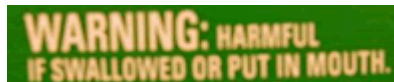
**POISON**



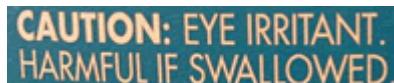
**DANGER**



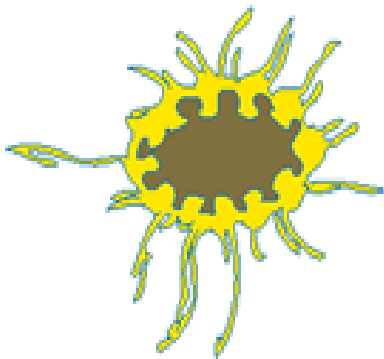
**WARNING**



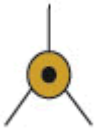
**CAUTION**



These signal words are often followed by advice to take precautions such as "Keep out of reach of children."



1. **Poison** is the highest hazard level of the group. Poison means that a product is highly toxic. It can cause injury or death if eaten, breathed, or absorbed through the skin.
2. **Danger** means that a product is *highly* toxic, or flammable, or corrosive.
3. **Warning** and **Caution** mean that a product is toxic, corrosive, reactive or flammable (but not as highly as for "danger").



## Examples and categories of household hazardous products

There are several different kinds of hazardous products out there, but many of them fit into these general categories:

- ✚ **Household cleaners** — examples include: bleach, ammonia, toilet bowl cleaner, drain cleaner, oven cleaner, bathroom cleaner.
- ✚ **Automotive products** — examples include: gasoline, motor oil, antifreeze, lead-acid batteries, brake fluid, transmission fluid.
- ✚ **Home improvement products** — Examples: paint, paint thinner, paint stripper, adhesives, varnish.
- ✚ **Pesticides** — examples include: rat and mouse poison, pet spray, flea collars, mothballs, insecticide, weed killer.
- ✚ **Other** — examples include: household batteries, shoe polish, lighter fluid, prescription medicines, arts and crafts materials.



## Discarding Hazardous Products in a Village

For some of us, there are a lot of good things about living in a Village (e.g. our community!) and some bad things about living in a Village (honeybuckets for some of us). Mainly, it is different from living anywhere else, and working with household hazardous wastes is no exception. **Here is why:**

**Good News!**  
Good News!

The **good news** is that we live healthfully through **subsistence** on our lands and waters. Even when our foods have tested positive for some contamination, the contamination is much less than in the store-bought fish and meats that 'non-subsistence people' have to eat. We are lucky. We have a saying in Southeast 'When the tide's out, the table is set'.

**'Not so good' News**  
Not so good News

The **not-so-good news** is that our dumps and sewage/honeybucket lagoons are often unlined, leaking, flooding, or sitting in or next to our lands and waters. Some of us have dumps and lagoons that meet *all* of these descriptions. In Anchorage, when folks throw out their hazardous wastes in the garbage, or pour them down the sink, the chemicals will end up in their lined Class 1

landfill. Or they will get diluted in their lined, advanced waste water treatment system. Not much of the waste will end up in the Anchorage environment. But in many of our Villages, that waste *does* end up in our environment.



**For example:** If we follow the disposal instructions for spray paint—"roll up the can in newspaper and discard in the trash" -- the spray can gets taken with our trash to our open, unlined dump. When the can rusts out, or is crushed by an ATV, snowmachine, or heavy equipment, the leftover toxic paint will leak. After that, the chemicals can be carried by flooding or snowmelt to the ground or river.



## Good News Again!

But the **good news is subsistence again**. Because, unlike people in Anchorage (and almost everywhere else in the world), we can control what goes into our local environment. That means we can control what community hazardous wastes get into our food. All we need to do is change our community's hazardous waste habits.

# Break the Connection!

Hazardous wastes connect to our subsistence by getting into our dump and sewage systems. We can break the connection by reducing, reusing, safely storing, or backhauling them instead.

We have outside construction projects that sometimes bring in hazardous wastes.

But Villages can write waste disposal ordinances to force projects to remove their hazardous wastes. To learn from Villages that have done this, call us at SWAN—we are working on the stories.

If we help our communities break the connection, we protect our subsistence. Read further to find out how.

## Reducing hazardous household products

The best solution to household hazardous waste is not to make the waste in the first place.

1. Instead of using toxic products, try to **use safer, less toxic products**.
2. Try to **buy only what you need**.
3. **Use it up correctly**.
4. **Give the leftover** to someone who can use it



## Safer alternatives to hazardous household products

Discarding wastes is not the only way hazardous products can harm our community. *Using the product-- even when we use it correctly-- can pollute our environment.* For example, many products, like bleach, thinners, and varnishes, can damage your lungs if you breathe them without opening your windows. But what happens when we open the window? The fumes go to our environment. It is like damaging the earth's lungs around our homes. If you can use some of the alternatives listed below, your home will be safer and you can even save money!

### All-purpose cleaner

Dissolve 4 tablespoons baking soda in 1 quart of warm water for a cleaning solution. Or use baking soda sprinkled on a damp sponge. Baking soda will clean all kitchen and bathroom surfaces.



### Drain cleaner

Prevent drain clogging! Use a strainer to trap food particles and hair. Collect grease in cans instead of pouring it down the drain. And to maintain a no-clog sink: *Once each week*, put 1/2 cup baking soda and then 1/2 cup white vinegar down your drain. Cover the drain. Let set for a few minutes. Then pour boiling water down the drain to flush it.



### Furniture polish

Dissolve 1 part lemon juice into 2 parts vegetable or mineral oil. Apply and polish with a soft cloth.



### Glass and Window Cleaners

Use cornstarch and water! *Or* mix 1/2 cup vinegar with one quart of warm water.

### Metal cleaner/polish

Aluminum Cleaner To remove stains and discoloration from aluminum cookware, fill cookware with hot water. Add 2 tablespoons creme of tartar to each quart of water. Bring solution to a boil and simmer ten minutes. Wash as usual and dry.



Brass Cleaner Clean and polish unlacquered brass to a shine with a soft cloth that has been dampened with Worcestershire sauce (!).

Silver Cleaner To clean tarnish off gold and silver, use toothpaste and a soft toothbrush or cloth. Rinse with clean warm water and polish dry.

Copper Cleaners Pour vinegar and salt over copper; rub and rinse.

### Oven Cleaners

Scrub with baking soda and water. Place liners in your oven to catch any drips during baking. Sprinkle salt on spills when they are warm and then scrub.



**Pests** Use boric acid to kill ants and roaches. Sprinkle a lot around the points of entry. *Warning:* Even though it is much safer than pesticides, boric acid has some toxicity. It should not be applied to areas where small children and animals might contact it.



### Spot remover

Immediately soak in cold water, lemon juice, club soda, or corn meal and water.

To remove ink stains, put creme of tartar on the stain. Squeeze a few drops of lemon juice over it. Rub into the stain for a minute. Brush off the powder. Sponge with warm water.





To find more alternatives, go to the following sites:

King County Natural Resources Hazardous Wastes Page  
<http://www.metrokc.gov/dnr/kidsweb/alternatives.htm>

EPA Region 5/Purdue University's site  
<http://www.epa.gov/grtlakes/seahome/housewaste/src/recipes.htm>



Hazardous Waste Management Program Office of Toxics and Solid Waste Management Department of Planning and Development Santa Clara County <http://www.p2pays.org/ref/04/03591.htm#link6>

## Important Tips when Purchasing, Using, and Storing HHW

When handled, stored, and used correctly, household hazardous wastes (HHW) don't pose too many environmental problems. However, many HHW products can harm or even kill you if handled improperly. There are three routes by which HHW can enter your body:

**Ingestion:** By eating or drinking hazardous substances or contaminated food and water;

**Inhalation:** Breathed in the form of gases, vapors and sprays;

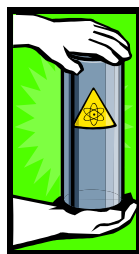


**Skin contact:** Products containing corrosives or (absorption) irritants will injure the skin and can be absorbed. Other toxic products go through the skin and enter your body without any skin damage or mark.

Follow the tips listed below when purchasing, using, and storing HHW.

### Purchasing household hazardous products:

- ◆ Think if you really need it. Can any of the safer alternatives listed in the section above be used instead?
- ◆ Buy the least hazardous product (Use the signal words to guide you).
- ◆ Buy only the amount you need to do the job.
- ◆ Read the label and make sure it is the product you want to buy. Look at the warnings and the disposal instructions. Sometimes the disposal instructions are not possible to follow in Villages.



Sometimes the warnings will be difficult to follow. We all know how hard it can be to keep a 2-year old away from where they should not be.

- ◆ Buy childproof products.
- ◆ Choose squirt bottles over aerosols. Aerosols spread the chemical in the air more, where you do not want it. You will use less product from a squirt bottle, and you will pollute the air less.



## Using household hazardous wastes safely:

- ◆ Read and follow instructions on the product carefully.
- ◆ Don't mix products together.
- ◆ If you are pregnant, or someone in your house is pregnant, avoid hazardous products as much as possible.
- ◆ Keep hazardous products stored high, or in locked cupboards, away from small children.
- ◆ Use hazardous products in WELL VENTILATED AREAS. Open windows, use fans, and take plenty of fresh air breaks.
- ◆ Avoid eating, drinking, and smoking when using hazardous products. Some of the invisible chemical can get on food, drinks, and cigarettes. Then you will end up having the chemical for lunch. Smoking can be dangerous around flammable hazardous products.
- ◆ Use appropriate safety gear when using hazardous products. Go to [http://www.ccthita-swan.org/main/safety\\_gear.cfm](http://www.ccthita-swan.org/main/safety_gear.cfm) for information on hazardous waste safety gear and spill clean up products.



## Storing hazardous wastes safely

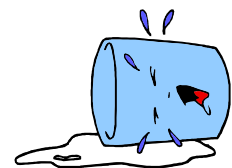
- ◆ Make sure you tightly seal caps and lids on hazardous products.
- ◆ Never store hazardous products in food containers.
- ◆ Keep products containing hazardous materials in their original containers and never remove the labels. Corroding containers, however, should be repackaged and clearly labeled. Keep containers dry to prevent corrosion.
- ◆ Keep products out of the reach of children and animals.
- ◆ Keep products away from sources of heat, spark, flame, or ignition such as pilot lights, switches and motors. This is especially important with flammable products and aerosol cans.
- ◆ Store products that warn of vapors or fumes in a well-ventilated area.
- ◆ Consider creating a family symbol, such as an unhappy or scary face, that children can identify. Draw this symbol on each container.







## Cleaning up spills and safety gear

If you have a hazardous waste spill in your community:

- 🚫 Remove children and pets from the area where the spill occurred.
- 🚫 Mark off the area so people don't come into contact with the spill.
- 🚫 Ventilate the area if the spill happened inside. But only enter the area without a mask if you know for certain what you are dealing with. Larger spills of some chemicals must only be handled by trained personnel. Some chemical fumes can kill.





-  Wear appropriate safety equipment when cleaning up or assessing the spill.
-  Contain the spill by soaking it up with absorbents (you can purchase absorbent pads or use clay-based kitty litter)
-  Put the absorbed material into a plastic bucket or drum. Label it with the date and what's in it.
-  See Safety Gear above for places where you can purchase spill clean-up products



See ADEC's spill response website for more information about hazardous material spills <http://www.state.ak.us/local/akpages/ENV.CONSERV/spar/index.htm>  
You can also contact **Mike Jaynes at ADEC at 451-2117.**

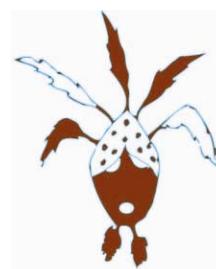
**Always use appropriate safety gear when using hazardous products. See above Section for resource links.**

## Starting A Community Household Hazardous Waste Program

Are you interested in setting up program to gather the household hazardous wastes generated in your community? If so, follow these steps....



### 1 Educate Your Community and Reduce Hazardous Wastes

The most important step in a hazardous waste program is to educate your community. It is important to inform people of the dangers associated with hazardous wastes, and the need to dispose of the wastes properly. **If you have an open dump, use honeybuckets, or have a sewage pond that floods or seeps: Be sure that your community knows that following disposal instructions on the label may not work very well.**



#### Educating Kids

Teaching our kids about hazardous wastes is one of the best ways to get the word out about the potential dangers of hazardous wastes. Go to your school and see if you can add the study of hazardous wastes to the topics they teach.

-  Talk about the reason a product is "hazardous" for your community (For example - Using or disposing the product can put a chemical in the river that is taken up by the fish we eat).
-  Then them how to know which household products are hazardous (reading warning labels and looking for words like: poison, toxic, flammable etc.)





- ◆ Talk about why it's important to protect the environment from hazardous wastes. Get kids to make the connection. Ask them how buying and using these products hurts things that they care about (subsistence, elders, drinking water sources etc.).

### Educating the Community

Spread the word about hazardous wastes! Put up flyers around the community and at the dump/landfill to remind people of the risks posed by hazardous wastes. There are many things that can pollute our environment. Some come from outside our Villages and it is difficult to do something about it. But hazardous wastes are what we bring in and make. So hazardous wastes are what we decide go into our dump and river and air.



Encourage people to REDUCE the amount of hazardous wastes in the community. Ask households to purchase less hazardous products and/or use less toxic alternatives.



## 2 Set Up A Reuse/Exchange Center For Household Hazardous Wastes

What is garbage to some people, may be useful to others. Reuse centers are a place in our communities to drop-off household hazardous products that they aren't using. Other people pick up products that they need. Examples of items typically found at reuse/exchange centers are paint, partially used household cleaners, ant spray, art and hobby supplies...just to name a few.



Example of a HHW reuse center  
Photo source: Municipality of Anchorage  
[www.muni.org/sws/hazardouswaste.cfm](http://www.muni.org/sws/hazardouswaste.cfm)

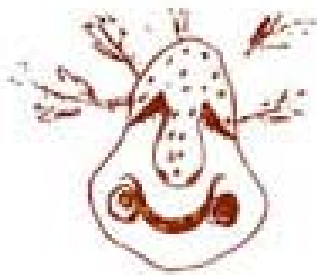
Some communities choose to have reuse/drop-off centers that are open every day. Other communities choose to have monthly or annual drop-off/pick-up days. They plan a big event for everyone to bring their hazardous wastes. Whether you decide to set up a reuse/drop-off center or hold a collection day, the hazardous wastes should be securely stored so they cannot be easily reached by children. The reuse center can be simple or fancy, depending on your budget. A used Connex works well. For information about selecting a good storage/collection center and to see examples, go to [http://www.ccthita-swan.org/Tutorials/storing\\_hazwaste.cfm](http://www.ccthita-swan.org/Tutorials/storing_hazwaste.cfm) , or call Ray at SWAN.



Note: Your HHW *reuse* center can be operated like a **store where everything is free**. So, if it is possible, it should be a different place from your regular hazardous waste *storage* area. A hazardous waste storage area is for storing wastes like lead-acid batteries, used oil, and used antifreeze safely *away* from the public. If it's not possible to have separate buildings, make sure that these wastes are stored in lidded containers, or blocked off from where kids can get into them.

**Pick a good location** in your community that is convenient for people to take their household hazardous wastes. This could be a central place in your community where access is easy. Your dump/landfill can be one of the best places if it is staffed and fenced off during closed hours.

**Location, Location, Location**








If you live in a larger village, **be careful that outside (or inside) businesses do not take advantage**. Hazardous wastes in bigger quantities are supposed to be disposed at a certified landfill Down South. These certified landfills or treatment centers are very expensive. One Village had a household hazardous waste collection day, and an unknown business dropped off many 55-gal drums of unknown hazardous wastes. It took a lot of phone calling and fund-seeking to get rid of the drums.

Ideally, it is great to have someone **staff the reuse center**, especially in the beginning when it starts off. Staff can help explain how it works. If you're not able to staff the center, try big signs that explain what people need to do. Hold a grand opening day and give a tour.



**Here are a few more suggestions for operating your reuse center:**

-  Keep a list of items that are dropped off, as well as the person's name and the date, in case you have a question later about what they brought. We have included an example at the end of this handout.
-  When people bring products, make sure you can clearly read the label of what the product is. If the label on the product is hard to read, write the name in big letters with a permanent marker.
-  Mark the drop-off date on the product if you can't find an original date on it.
-  Post a sign at the reuse center listing items that you do accept or items that you don't accept (and an alternative of what to do with them).
-  You might choose to not allow businesses to drop off wastes at your center. If you are concerned that they may try anyway, you can ask people to sign and date a waiver when they drop-off products. The waiver could say something like "I certify that this is household waste was made at my household, and not generated at a business."



And finally, once your reuse center is set up, place signs up around the community and at the dump/landfill letting people know:

- ◆ What kind of hazardous wastes are being collected,
- ◆ Where (and when) they should take their hazardous wastes, and
- ◆ The importance of not dumping hazardous wastes on the ground, in trash can that ends up in your open dump, or in a pipe that empties to waterways.



To see an example of a household hazardous waste collection center, keep reading.

### 3 **Recycle/ship out/dispose of remaining hazardous wastes**

If you have any remaining hazardous wastes that can't be reused, here are some suggestions:

#### **Recycle/dispose properly**

For information about how to recycle/dispose of different types of hazardous wastes including used oil, antifreeze, etc., go to [http://www.ccthita-swan.org/Tutorials/haz\\_wastes.cfm#10#10](http://www.ccthita-swan.org/Tutorials/haz_wastes.cfm#10#10) , or call Ray at SWAN.



#### **Ship hazardous wastes out of your community**

For information about how to ship out hazardous wastes, including FREE shipping programs in place, go to [http://www.ccthita-swan.org/Tutorials/shipping\\_hazwaste.cfm](http://www.ccthita-swan.org/Tutorials/shipping_hazwaste.cfm) on the internet or call Ray at SWAN.

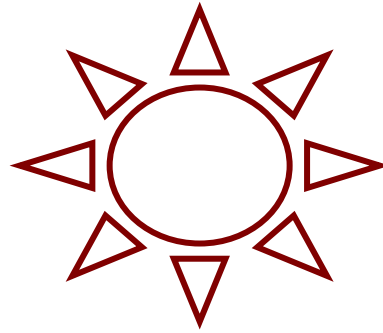
#### **Photos of a household hazardous waste collection center**

In February 2004 during the Forum conference, we arranged a tour of the Anchorage Household Hazardous Waste Center. Note: anyone can get a free tour! Give them a call at (907) 428-1742 or (907) 343-6262 and set up one for the next time you're in Anchorage. Here's their website too: <http://www.muni.org/sws/hazardouswaste.cfm> Look at the pictures we took on the next page.

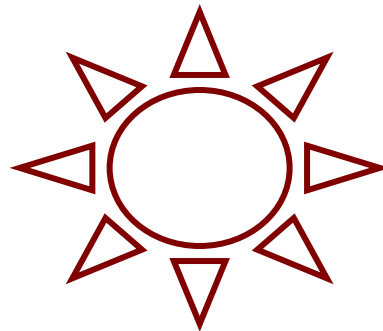


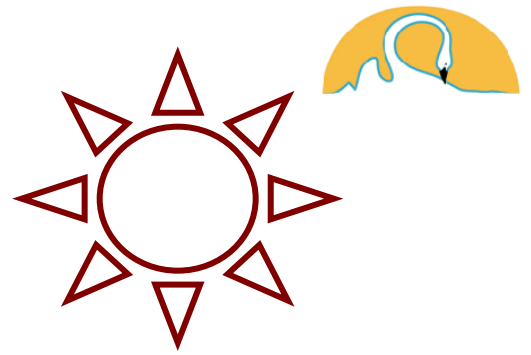


The front of the Anchorage Hazardous Waste Center



The household hazardous waste reuse center is located in a used Connex container. Shelving was put up, lighting installed, and a small office in the back was set up. It is just like a regular hardware store. Here we are-- looking at the different products available to anyone who wants them (for free!).





The staff person showed us the safety gear they had on hand in case of a spill. The photos above are Marvin Ramoth and Ben Davis from the Native Village of Selawik demonstrating the use of a Tyvek suit to wear when cleaning up spills. The other types of safety gear the Center had ready to use were gloves, goggles, and absorbents (kitty litter and pads) to clean up any spills.

The Center also had hazardous waste safety, identification, and emergency information sheets posted. These sheets can be purchased for under \$20 at Alaska Safety in Anchorage (907) 561- 5661.







## Publications

To order any of the following EPA documents call the RCRA Information Hotline at: 1 (800) 424-9346

- [Household Hazardous Waste Management: A Manual for One-Day Community Collection Programs.](http://www.epa.gov/epaoswer/non-hw/househld/hhw/cov_toc.pdf)  
[http://www.epa.gov/epaoswer/non-hw/househld/hhw/cov\\_toc.pdf](http://www.epa.gov/epaoswer/non-hw/househld/hhw/cov_toc.pdf)
- Household Hazardous Waste: Steps to Safe Management. April 1993. EPA 530-F-92-031.
- [Household Hazardous Waste Reduction.](http://www.epa.gov/reg5rcra/wptdiv/p2pages/hhw.pdf)  
<http://www.epa.gov/reg5rcra/wptdiv/p2pages/hhw.pdf> August 1997. EPA-905-F-97-011.
- Collecting Household Hazardous Wastes At Wastewater Treatment Plants: Case Studies (1990), publication number EPA 430/09-900~016, published by U.S. EPA, Office of Water (WH-546), 401 M Street SW, Washington, DC 20460.

Also, the **Alaska Native Health Board (ANHB)** has a great household hazardous waste guide in their Rural Alaska Integrated Waste Management Reference Manual Planning Resource Guide which can be viewed at the link below:

[http://www.anhb.org/sub/rasc/Solidwastehome\\_files/refguide/Appendix%203.pdf](http://www.anhb.org/sub/rasc/Solidwastehome_files/refguide/Appendix%203.pdf)

## Contacts and Phone Numbers

The State of Alaska does not have a hazardous waste program, so federal hazardous waste regulations apply. The federal program is managed by EPA. For general hazardous waste questions, you can call direct at (907) 271-6329 or (206) 553-6502. You can also call the toll free number 1 (800) 424-4EPA and ask for Diane Richardson or Nina Kocourek.

## Emergencies

For emergencies with household hazardous wastes call 911 or the Poison Control Center in Alaska at 1 (800) 222 1222.



## How can I get additional information about hazardous waste?

- 1) See the SWAN general hazardous wastes page
- 2) For an A-Z list of hazardous waste products and what to do with them see EPA Region 5's hazardous waste webpage. Click on the link below:  
<http://www.epa.gov/grtlakes/seahome/housewaste/house/products.htm>
- 3) Visit other hazardous waste websites below:
  - EPA Region 5: Household Waste  
<http://www.epa.gov/grtlakes/seahome/housewaste/src/open.htm>
  - EPA Region 3: Household Waste  
<http://www.epa.gov/reg3wcmd/solidwasteinhousehold.htm>
  - U. S. EPA - Household Hazardous Wastes  
<http://www.epa.gov/epaoswer/non-hw/muncpl/hhw.htm>
  - ANHB's Rural Alaska Integrated Waste Management Guide  
[http://www.anhb.org/sub/rasc/Solidwastehome\\_files/refguide/Appendix%203.pdf](http://www.anhb.org/sub/rasc/Solidwastehome_files/refguide/Appendix%203.pdf)





**Household Hazardous Waste Reuse Center Log**  
**Please Fill Out**

| <b>Date</b> | <b>Name and phone number of person dropping off</b> | <b>What kind of product dropping-off (e.g. can of paint, bottle of bleach etc.)</b> |
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