

HAZARDOUS WASTE

Talking to an environmental scientist or engineer about hazardous wastes could be confusing. You may not be talking about the same group of substances.

SOME DEFINITIONS

Because of regulations, environmental scientists and engineers have defined certain terms to describe wastes and other substances that fall under these regulations. These definitions are not always clear.

The definitions below are almost word-for-word from the U.S. Environmental Protection Agency's "Environmental Progress and Challenges: EPA's Update."

HAZARDOUS SUBSTANCE

Any substance that, when released into the environment, presents substantial danger to public health or the environment.

EXTREMELY HAZARDOUS SUBSTANCES

Substances that cause serious, irreversible health effects from a single exposure.

SOLID WASTE

Any garbage, refuse, sludge or other discarded material. All solid waste is not solid. It can be liquid, semi-solid or contained gas. Solid waste can be either hazardous or nonhazardous.

HAZARDOUS WASTE

Solid waste or combinations of solid waste that may pose a hazard to human health or the environment because of its quantity, concentration or chemical, physical or infectious properties.

NONHAZARDOUS WASTE

Solid wastes including municipal wastes, household wastes, municipal sludge, and industrial and commercial wastes that are not hazardous or have been specifically exempted.

Generally though, most people agree that for a substance to be called hazardous, it must have any of these four characteristics:



- 1) **Flammability or ignitability** – easily sets afire and burnable; can cause fires (e.g.; paint thinner, nail polish remover).
- 2) **Corrosivity** – eats away materials by chemical action; acidic or basic (e.g.; drain cleaner).
- 3) **Reactivity** – unstable; creates explosions or toxic fumes, gases or vapors (e.g.; chlorine bleach).
- 4) **Toxicity** – harmful or fatal when eaten, inhaled or absorbed (e.g.; pest poisons, furniture polish).

HOUSEHOLD HAZARDOUS WASTES

We come in contact with many hazardous substances every day. Generally, we call these household hazardous materials. Here is a partial list and where they can be found.

IN THE HOUSE:

- * batteries
- * toilet cleaners
- * photographic chemicals
- * disinfectants
- * drain cleaners
- * carpet and upholstery cleaners
- * floor and furniture polish
- * bleaches and cleansers
- * hair spray
- * mothballs
- * pool chemicals
- * house plant insecticides
- * flea collars and sprays
- * roach and ant killers
- * rat and mouse poisons
- * ammonia-based cleaner
- * nail polish and remover
- * fluorescent lights
- * kerosene, fuel oil

IN OUR AUTOS:

- * antifreeze
- * transmission and brake fluids
- * used oils
- * batteries
- * gasoline, diesel fuel

IN THE WORKSHOP:

- * enamel, latex and oil and water based paints
- * paint thinners and turpentine
- * furniture or paint strippers
- * wood preservatives
- * stains and finishes

IN OUR GARDENS AND YARDS:

- * fungicides
- * insecticides
- * organo-phosphates
- * herbicides

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HAZARDOUS WASTE SITES

Disposal sites (landfills) containing hazardous wastes present some of the most serious environmental problems we face today. These sites can contaminate groundwater, cause explosions and affect the health of people nearby. In many cases, the people who disposed of the waste were unaware of this potential danger.

In the United States alone, there are about 30,000 possible contaminated sites. These sites range from a leaking hazardous waste incinerator in Maine to a leaking underground pipe in California.

REDUCING HAZARDOUS WASTES

There are three ways to reduce our use of hazardous materials, and consequently, our generation of hazardous waste.

PRODUCT SUBSTITUTION

This means that a company or person can use another product instead of the hazardous one (see below for what you can do).

PROCESS EFFICIENCY

When a hazardous substance must be used, the company or person uses it sparingly and in the proper way.

RESOURCE RECOVERY

Basically, this means recycling. Many byproducts of manufacturing processes can be used in other processes.

FOR MORE INFORMATION

about hazardous wastes, read the Air & Waste Management Association's fact sheets on recycling, municipal waste and hazardous waste management in the U.S. and the information book on pollution prevention.

WHAT YOU CAN DO AROUND THE HOUSE

You can practice all three ways to reduce hazardous waste around your house. The two easiest things to do are to recycle and to use another product instead of the hazardous material. Here are some suggestions:

<i>INSTEAD OF:</i>	<i>USE:</i>
Chrome, stainless steel cleaner	Flour on a dry cloth.
Cleanser	Salt for sinks. For ovens and refrigerators, baking soda.
Drain cleaner	Two handfuls of salt followed by boiling water should clear most pipes
Furniture polish	Olive oil, lemon oil, beeswax, or beeswax and olive oil
General insect spray	Blend 6 cloves of crushed garlic, 1 minced onion, 1 tablespoon dried hot pepper and 1 teaspoon soap in four quarts of water. Let set for one or two days. Strain and spray.
Insect repellent	Plants that repel insects such as marigolds, nasturtiums, petunias, rosemary and garlic can be mixed with or planted near plants susceptible to insects.
Moth repellent	Cedar wood and woodchips.
Slug and snail poison	Beer in flat containers placed below ground level.

This Environmental Fact Sheet is one of a series produced by the Air & Waste Management Association. The Association also produces educational materials for schools and the general public. For more information, phone (412) 232-3444.