What is Hazardous Waste?
Part 3, Your Home

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Home is where the hazardous products are (with apologies to Pliny the Elder).

This third and final article in the series identifies "hazardous chemicals" that you knowingly bring into your home, use, and generally do not fear. And nor should you fear these chemicals, but you should respect and understand them. And because some of these chemicals posses very real dangers, it behooves each homeowner to use them correctly. This means that one should always follow the manufacturer's directions.

What About Chemicals in Your Home?

The average person is often oblivious to chemical hazards in their home. Many of the common products that you have at home are dangerous, even though they are sold over-the-counter and most people do not think twice when using them. Here are many common examples (Note: This list is not intended to be all-encompassing).

- Laundry Bleach (e.g., Clorox, mostly Sodium hypochlorite – a powerful oxidizer)
- Drain decloggers (e.g., Drano, mostly Potassium Hydroxide – a powerful caustic)
- Oven cleaners (either sodium hydroxide or potassium hydroxide – a powerful caustic)
- Ammonia (a dilute solution of ammonia, used as a cleaning agent)
- Glass cleaner (ammonia and isopropanol)
- Toilet cleaner (usually a form of bleach plus detergents)
- Air fresheners (a general mixture that can contain formaldehyde, petroleum distillates, p-dichlorobenzene, and aerosol propellants)
- Furniture polish (petroleum distillates and a fragrant oil)
- Rug cleaners (perchloroethylene and/or various detergents)
- Hobby paints and glues (often toluene-based)
- Paint, oil-based (mineral spirits)
- Paint, latex-based (latex and binders)
- Lighter fluid (a mixture of petroleum distillates)

- Pesticides (e.g., various chemicals – mostly organic -- specially formulated to kill insects, rodents, etc.)
- Herbicides (various organic compounds used to kill unwanted plants)
- Gasoline (benzene, toluene, ethylbenzene, xylene, and methyl tert-butyl ether)
- Mothballs (naphthalene)
- Antifreeze (ethylene glycol)
- Muriatic acid (hydrochloric acid)
- Car batteries (sulfuric acid)

The toxicity of these chemicals is variable. Some can actually kill people if used improperly or ingested, but most will "only" make you sick or harm you in other ways when used improperly. Moreover, if spilled, some of these chemicals can result in an environmental situation requiring professional remediation (Two of the most common household products, bleach and ammonia, must NEVER be mixed together! Upon being mixed, they react instantly, releasing acidic hydrogen chloride gas that can burn your air passages and kill you).

Despite these clear and imminent hazards, most people use these products as needed and they do so with little fear or trepidation. Yet, if a user is careless, he or she potentially faces a higher degree of danger than they do from living near a hazardous waste site.

The USEPA has published information on this subject. For information concerning hazards in one's home, see http://www.epa.gov/kidshometour/index.htm. For information about household products, see: http://www.epa.gov/pesticides/kids/hometour/questions.htm.

Conclusions

My message is simple: let's be careful! We all have some of these chemicals in our homes. By all means, use them. But do so as directed by the manufacturer and always exercise care. And remember, I look forward to answering your questions. Feel free to call me at 732-469-8888 x201 or send an email: sfauer@askesa.com.