

# HAZARDOUS WASTE - CHEMICAL INCOMPATIBILITIES

Some chemicals are not compatible with others. Chemical reactions are fairly common in waste collection containers. Incompatible materials may burst into flames immediately or hours after mixing; emit noxious or toxic gases; or simply bubble and fizz out of the container making a mess.

As a rule, do not mix or store the following chemical classes together:

- Acids and alkalies
- Bleaches
- Oxidizing agents
- Reducing agents
- Solvents and flammables

Learn about which materials are incompatible when mixed together and which are not. Numerous lists and tables of incompatible chemical types have been compiled.

The following are specific incompatibilities:

- Ammonia with hypochlorite bleach;
- Nitric acid with acetic acid;
- Nitric acid with sulphuric acid;
- 1-Butanol with strong mineral acids;
- n-Butylamine with copper and copper alloys;
- n-n-Dimethyl formamide with halogenated hydrocarbons;
- Ethyl acetate with strong alkalies;
- Ethylene Dichloride with oxidizing materials;
- Ethylene glycol with sulphuric acid;
- MEK peroxide (hardener for polyester casting resin) with anything flammable;
- 1,1,1 Trichloroethane with caustic soda and caustic potash.

Do not use these chemicals at all:

- benzene (benzine, the petroleum thinner, is safe - remember, benzine is fine, benzene is mean);
- carbon tetrachloride;
- chloroform;
- pyridine;
- phenol (carbolic acid);
- perchloric acid;
- hydrofluoric acid (If hydrofluoric acid must be used, be aware that it is lethal and its vapors can pass through your bones. It will eat through glass and dissolve silicon. It is an absolute must to wear protective clothing. This acid is considered an extremely hazardous material.)

Assistance should be available in your area for advice on how to collect, containerize and dispose of hazardous waste. Try looking first in the telephone book for the State Department of Health Services or equivalent, the local fire department, a waste management company or waste hauler. Waste management companies and haulers must be registered with the state and with the Environmental Protection Agency (EPA.) There may be a consultant fee for services rendered.

