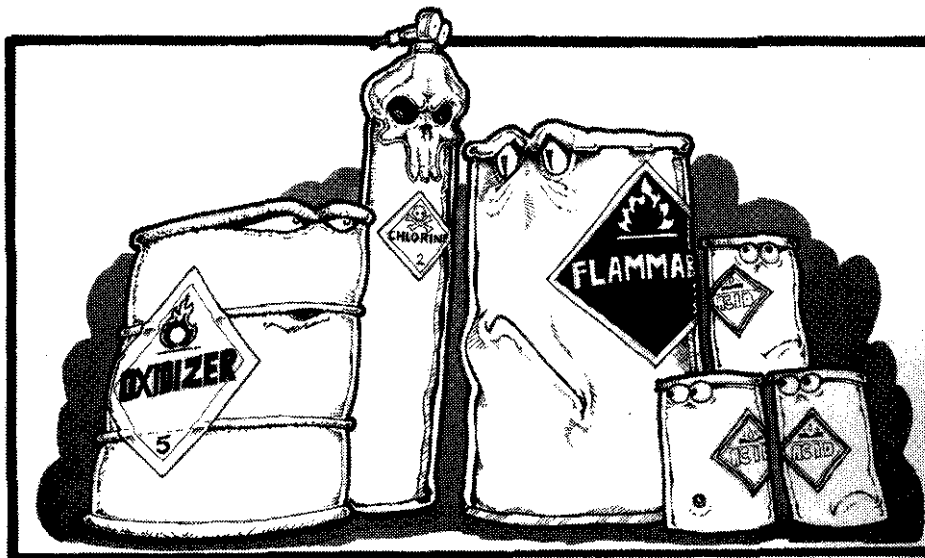




CHEMICAL  
SAFETY

# Irreconcilable Differences

## *Storing Incompatible Chemicals*



If you store or move containers of hazardous chemicals in your job, you need to be aware of the dangers of incompatible chemicals—those chemicals that can react together to create toxic smoke, gas, heat, fire or explosion. Each of the following groups of chemicals is incompatible with other chemicals used in industry.

### **Oxidizers And Flammables**

Fires need oxygen to burn; that's why blowing air on a fire will make it burn hotter and why smothering a fire will put it out. Because oxidizers are chemicals that give off a great deal of oxygen in a hurry, you must take special precautions to keep them away from flammable and combustible materials. Inorganic oxidizers, the most common oxidizers used in industry, don't burn themselves but add oxygen to a fire and are especially dangerous near organic materials. Organic oxidizers not only feed a fire, but are also flammable; some can even explode as a result of heat, shock or friction. Storage areas should clearly label oxidizers, indicating the type and degree of hazard. Never store oxidizers with combustible materials or other oxidizers, and store large quantities of oxidizers in a separate room that is fire-protected. Store flammable liquids in a separate, ventilated room, in fire-resistant containers

that have been grounded to prevent ignition from static electricity.

### **Acids and Bases**

Acids and bases are chemical opposites that react violently with each other, often producing heat, explosions or toxic gases. Since they are powerful corrosives, they can react with many other substances. Many acids are also oxidizers and can create fires if they react with combustible materials. Bases such as lye produce intense heat when in contact with water. (Chemicals whose names include the word hydroxide are usually bases.) Store acids and bases in separate areas in clearly labeled containers. Consult MSDSs for additional incompatibility data on these chemicals.

### **Be Informed**

When making decisions about storing chemicals, follow your company's chemical storage plan or refer to label warnings and MSDS information on compatibility. Don't assume that a chemical is safe because it doesn't seem to be an oxidizer or a flammable or an acid or a base. Store chemicals in their appropriate containers, under proper conditions. Only then can you be confident that you have stored a chemical correctly.