

HANDLING CHEMICALS SAFELY

In the modern world, chemicals play an important role in our jobs and in our daily lives. Any chemical regardless of its characteristics can be dangerous if handled improperly. To ensure that chemicals and materials do not injure you, follow these basic rules.

- ✓ **Know the chemicals.** Know how to handle chemicals or materials. Know what the chemical or material is and how it should be used. Always read the container label and the manufacturer's instructions. If incompatible chemicals are mixed, a violent reaction could occur or harmful gases could be produced.
- ✓ **Handle with care.** Handle chemicals and materials with care; be sure the containers are not damaged and the original label remains on the container. If you transfer the chemical to a second container, re-label that container with the name of the chemical. Always transfer chemicals carefully. Dispose of chemical and waste according to regulations, and be extremely cautious if the hazardous chemical or material is flammable.
- ✓ **Protect yourself.** Use **personal protective equipment (PPE)** as prescribed by the chemical manufacturer. Always avoid contact with harmful dust, fumes, or mist. Never drink or eat when you are using chemicals or material. Practice good personal hygiene when you handle hazardous chemicals or materials. **Types of PPE Include:**
 1. Safety Glasses/Goggles
 2. Gloves
 3. Respirators
 4. Ear plugs
 5. Foot protection (sturdy foot wear)
 6. Head protection (hard hat)
 7. Special (i.e., safety harnesses, lanyards)
- ✓ **Instructions.** Be sure you are taught how to handle specific chemicals or materials, especially if you have questions about how to handle them safely.
- ✓ **If in doubt.** If you are not sure how to safely handle a chemical or material, **DO NOT TAKE A CHANCE.** Ask for help. Review the **Safety Data Sheets (SDS)**. What is a SDS? **SDS** (Safety Data Sheets) formerly called Material Safety Data Sheets, MSDS, Safety Data Sheets, if read and followed, are a powerful means of controlling chemical exposures. Chemical manufacturers write SDS's for the chemicals they produce or import. The purpose of the SDS is to communicate information on the recommended safe use and handling procedures for that chemical.



Chemical/Materials Overview

These are by far only a few of the chemicals or materials you may come into contact with. Remember to read the label and follow the manufacturer's handling instructions.

Solvents & Adhesives (paint thinners, glue adhesives, alcohols)			
Hazards	Effects	How can I protect myself?	Storage
Some are flammable or reactive and cause irritations to the eyes; dissolves the protective oil on the skin	headaches, dizziness, nausea, irritation to the respiratory tract, cramps, change in skin color	Wear protective gloves and safety glasses. Keep away from open flames. Have adequate ventilation.	Store in a flammable liquids cabinet.
Paints (liquid paints, lacquer, enamel, aerosol paints)			
Hazards	Effects	How can I protect myself?	Storage
Some cause irritations to the eyes; dissolves the protective oil on the skin; aerosols can become airborne, causing skin and eye irritation; spray cans are sensitive to heat, fire, and damage	headaches, dizziness, nausea, irritation to the respiratory tract, cramps, change in skin color; damaged spray cans can explode	Wear protective gloves and safety glasses. Have adequate ventilation. Keep aerosol cans protected from heat or damage.	Store in a flammable liquids cabinet.

Reference:

OSHA CFR 1910.1200 Hazard Communication Standard CFR 1910.132 Personal Protection Equipment

CFR 1910.134 Respirators

ANSI Z 400.1-1990 Eye Wash and Shower Equipment