

Working Safely With Chemicals



Hazard Communication Standard / Florida Right-To-know

- *The Law*
- *Physical Hazards*
- *Health Hazards*
- *Labeling Systems*



Under the Requirements of Florida's Law, an Employer Has Certain Obligations to Employees.

Employer must post a notice informing workers of their rights under the law.

Obtain and keep for a period of 30 years the MSDS for each toxic substance present in the workplace.

Make a copy of the MSDS available to a worker within five work days.

Provide training to employees within their first 30 days of employment on the the nature and effects of those toxic substances that they work with.



The employee has the right to:

- Know of toxic substances present in the workplace.
- Obtain a copy of the MSDS for any listed toxic substance which they might be exposed to.
- Refuse to work with a toxic substance if not provided a copy of the MSDS for the that substance within five work days of filing a written request with their employer.
- Training of any toxic substance in their work area.
- Protection against discharge, discipline, or discrimination for having exercised any of the rights granted by this law.



Know the Hazards of the Chemicals Are Working With Before You Use

Material Safety Data Sheets

- *Provide Detailed Information*

Labels

- *Provide Basic Hazard Warnings*

Training

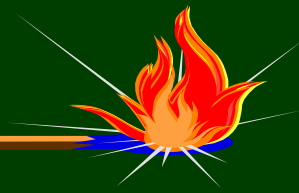
Contact EHS for the next training



Physical Hazards

A Physical Hazard Is a Chemical for Which There Is Evidence That Is a Combustible Liquid, a Compressed Gas, Explosive, Flammable, and Organic Peroxide, and Oxidizer, pyrophoric (Spontaneously Ignites), or Reactive.





Flammability

- The flash point is a measurement of the lowest temperature at which a liquid gives off enough vapor to form an ignitable mixture.
- **Any liquid with a flash point (FP) below 100 degrees Fahrenheit is considered flammable; A liquid with a FP below 200 degrees Fahrenheit is combustible.**
- Containers of flammable liquids should be stored in a flammable cabinet when not in use.



Common Flammable Liquids

Chemical Flashpoint

ETHYL ETHER	-49 ° F
GASOLINE	-45 ° F
ACETONE	- 4 ° F
BENZENE	10 ° F
LIQUID THINNER	12 ° F
XYLENE	29 ° F
ISOPROPYL ALCOHOL	53 ° F

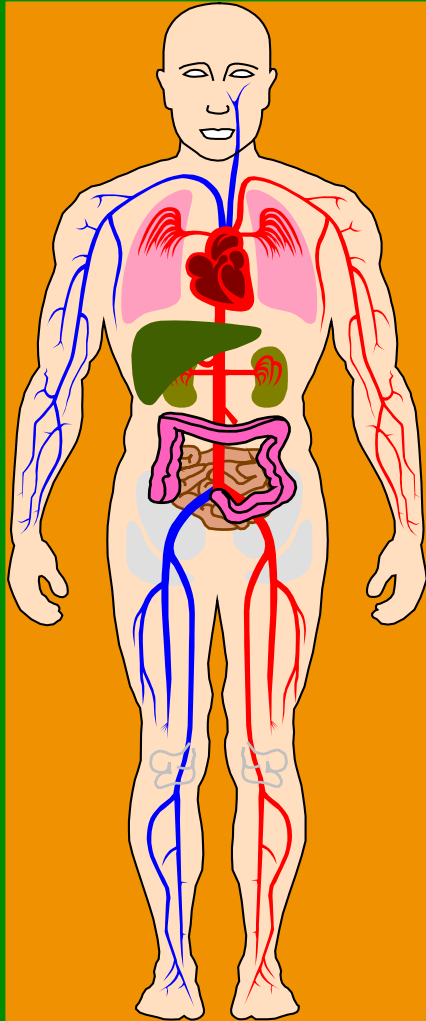


Reactivity

These materials can react violently when exposed to other materials or will vigorously polymerize, decompose, condense, or become self reactive under conditions of shocks, pressure, or temperature.



Health Hazards



A health hazard is a chemical for which there is statistically significant evidence that *acute* (sudden) or *chronic* (long term) effects may occur in exposed employees.

Toxicity-toxic substances can cause illness or death. These chemicals can enter your body through four routes:

Inhalation

Absorption

Ingestion

Injection

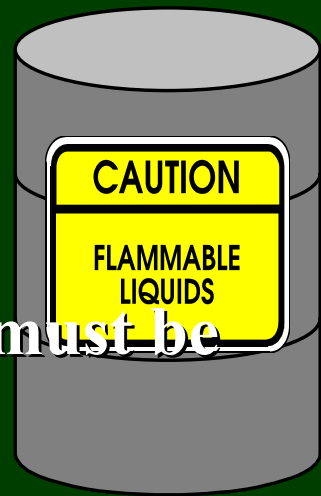
The toxicity of a substance can be measured by using the LD50, which is the dose that would kill 50% of a target population.

Health Hazards

- **Corrosivity**-corrosive materials can cause severe burns on contact with skin or eyes.
- The ph scale is a measurement for corrosivity. The ph scale measures from 1 (acidic) to 14 (basic).
- Ph 7 is considered neutral



Labeling Requirements



Every container that stores hazardous chemicals must be labeled with the following information:

- **Chemical identity**
- **Appropriate hazard warnings for both physical and health hazards**
- **Name and address of the chemical manufacturer, distributor, or importer (this information is not required in areas where MSDS's are readily available).**
- **This information must be in English. The information may be reprinted in the user's native language, if desired.**



Labeling Requirements

UCF is currently relying on manufacturer labeling. However, an in-house labeling system has been developed for the following circumstances:

- Torn, illegible, or defaced manufacturer labels
- Secondary containers containing chemicals that are not intended for immediate use by the employee transferring the chemicals in his or her shift.



These labels rate flammability (red), health hazards (blue), and reactivity (yellow) numerically.

The scale is from 0-4 with 0 being a minimal hazard and 4 a severe hazard.

