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## **HAZARDS IN THE WORKPLACE - YOUR RIGHT TO KNOW**

The purpose of this Hazard Communication Manual is to provide employees with the information they need to work safely with chemicals. The information found in this manual is not meant to be all inclusive, rather it contains an introduction to a large amount of information. More extensive information is available through your supervisor or the Department of Safety and Environmental Compliance. Your part is an ongoing commitment to stay up to date on chemical safety at work. **It is very important to ask questions if there is any part of your job or training that you do not understand.**

### **EMPLOYER-EMPLOYEE RESPONSIBILITIES**

**Employers** will determine which workplace materials are hazardous and provide employees with the information, training and equipment they need to protect themselves and others. A list of hazardous materials known to be present in your work area will be compiled and available to departmental employees. The Department of Safety and Environmental Compliance also has a copy. Employees working for independent contractors must also be educated to the hazardous materials present in the workplace. **Employees** will be required to take part in safety training provided by the University and to use this training, as well as, safety procedures and protective equipment to work safely. Employees working for independent contractors are responsible for providing material safety data sheets for hazardous materials that they bring into the workplace and compliance with the University's safety policies and procedures.

## CHEMICAL SAFETY

Chemicals are a vital part of many products we use at work and in our homes every day. These substances also play an important role in a wide variety of industrial processes. Chemical hazards may be detected by visual observation, detection of unusual odors or through air sampling. You should become familiar with chemicals in the workplace and learn to recognize their associated hazards before using them.

## MODES OF CHEMICAL EXPOSURE

Chemicals can enter the body in one of four ways:

- **Inhalation** - Breathing in hazardous chemicals can cause dizziness, nausea or headaches and can damage the respiratory system.
- **Absorption** - Contact with chemicals can cause burns, rashes or allergies. It is possible for some chemicals to pass through the skin, eyes or mucous membranes into the bloodstream.
- **Ingestion** - If you eat, drink or smoke during or after handling chemicals without washing your hands, there is a risk of exposure.
- **Injection** - A cut or puncture wound could allow chemicals to enter the bloodstream.

## **CHEMICAL HAZARD CLASSES**

### **Physical Hazards**

Flammable  
Irritant  
Reactive  
Pyrophoric  
Compressed Gas  
Oxidizer

### **Health Hazards**

Corrosive  
Combustible  
Toxin  
Carcinogen  
Teratogen  
Mutagen

Physical hazards of chemicals are controlled by handling them properly. That's why when you see that a chemical poses a physical hazard, you should check the MSDS for the best way to store, mix and move it.

A chemical is considered a health hazard if it causes adverse health effects when people are overexposed. Health effects include illness, diseases and physical harm.

## **CHEMICAL LABELS**

Labels are an important part of hazard identification. The labels on containers can provide key information that you may need to work safely with chemicals. All chemical containers must be labeled by the manufacturer, importer or distributor. If you see a chemical container without a label or the label has become damaged or illegible, replace it immediately.

Basic information found on a chemical label includes:

- Chemical composition
- Name, address and telephone number of manufacturer
- Warnings about the chemical's specific hazards

A label may also include:

- Handling and storage requirements
- Personal protective equipment recommendations
- First aid procedures

## **MATERIAL SAFETY DATA SHEETS (MSDS)**

The following information explains what will be found on the typical MSDS. Be familiar with material safety data sheets for all chemicals in your work environment. Always read the material safety data sheet before starting a job with chemicals. If you are not sure where these are located, just ask your supervisor. It's all part of helping you learn everything you can about the chemicals in your work environment.

1.      **Chemical Product and Company Identification**
  - Name of material (common and chemical)
  - Name and percentage of any hazardous ingredients
  - Name, address and phone number of company that made the chemical
2.      **Hazard Identification**
  - Normal appearance and odor
  - Immediate hazard, such as fire, explosion, etc.
  - Effects on health
  - Symptoms of exposure
  - Flash points
  - Upper and lower explosion limits
3.      **Physical and Chemical Characteristics**
  - Boiling, melting and freezing point
  - Solubility in water
  - Specific gravity
  - Vapor density and pressure
  - Stability
  - Incompatibility
  - Decomposition products
  - Hazardous polymerization
4.      **Health Hazards**
  - Routes and types of exposure
  - Specific health problems and risks due to exposure
  - Target organs
  - Signs and symptoms of exposure
  - Recommended exposure limits

5. First Aid Measures
  - Emergency and first aid procedures
  - Specific treatment information for physicians
6. Firefighting Measures
  - Fire and explosive properties
  - Appropriate fire extinguisher type
  - Special firefighting procedures
  - Hazards that could develop if the substance catches fire
7. Spill and Disposal Procedures
  - Response procedures
  - Personal protective equipment
  - Engineering controls
  - Disposal methods
8. Handling and Storage
  - Instructions for handling the chemical safely
  - Optimal storing conditions
9. Transportation Information
  - Transport information, including DOT classifications
10. Regulatory Information
  - Governmental regulations that apply to the chemical

## **BIOSAFETY**

The USACOM Biosafety Manual applies to all RESEARCH laboratories within the College of Medicine which handle infectious microbes categorized as biohazards by CDC/NIH, or biological materials which may contain them. It also describes procedures to protect staff from health risks associated with human and non-human primate bloodborne pathogens and any body fluids or products. These biohazards require special precautions. Individual work sites may have more detailed Standard Operating Procedures (SOPs) which govern specific details regarding management of those biohazards. The SOPs should be followed for those operations in addition to general biosafety guidelines detailed in the USACOM Biosafety Manual. Each University hospital and clinic facility treating patients has its own separate biosafety requirements and procedures and their biosafety programs are managed internally.

## **RADIATION SAFETY**

The Radiation Safety Procedures Manual is designed to define the proper procedures for procuring and using radionuclides at the University of South Alabama. The procedures are based on the Alabama Health Department's regulations and shall be followed. Unless other provisions are approved in writing by the University of South Alabama Radiation Safety Committee, the procedures set forth in the manual shall be used by all University personnel.

**USA MAIN CAMPUS AND UNIVERSITY COMMONS  
CHEMICAL, BIOLOGICAL, FIRE OR  
RADIATION EMERGENCY RESPONSE**

USA University Police	Emergency	511
	Non-Emergency	6-6312
USA Central Plant	Operator Station	6-7047
	Operator Cell Phone	379-9754
USA Maintenance (Monday-Friday, 7AM-3:30PM)		6-7111
Radiation Safety		6-7063
Mobile City Fire	Emergency	9-911
Rescue Department	Non-Emergency	208-7311
Mobile Police	Emergency	9-911
Department	Non-Emergency	208-7211

**USA HOSPITALS  
CHEMICAL, BIOLOGICAL, FIRE OR  
RADIATION EMERGENCY RESPONSE**

USA Medical Center	Emergency	11
USA Medical Center	Security	7-7525
USA Medical Center	Operator	0
USA C&W Hospital	Emergency	11
USA C&W Hospital	Security	3-1135
USA C&W Hospital	Operator	0
Radiation Safety		460-7063
Mobile City Fire	Emergency	9-911
Rescue Department	Non-Emergency	208-7311
Mobile Police	Emergency	9-911
Department	Non-Emergency	208-7211

**USA BROOKLEY  
CHEMICAL, BIOLOGICAL OR FIRE  
EMERGENCY RESPONSE**

USA University Police		460-6312
USA Brookley	Security	431-6417
Mobile City Fire	Emergency	9-911
Rescue Department	Non-Emergency	208-7311
Mobile Police	Emergency	9-911
Department	Non-Emergency	208-7211

**USA SPRINGHILL  
CHEMICAL, BIOLOGICAL OR FIRE  
EMERGENCY RESPONSE**

USA University Police		460-6312
USA Springhill Security	Emergency	444
	Non-Emergency	2-3651
Mobile City Fire	Emergency	9-911
Rescue Department	Non-Emergency	208-7311
Mobile Police	Emergency	9-911
Department	Non-Emergency	208-7211

**USA BALDWIN COUNTY  
CHEMICAL, BIOLOGICAL OR FIRE  
EMERGENCY RESPONSE**

USA University Police		460-6312
Fairhope Fire	Emergency	911
Rescue Department	Non-Emergency	928-2371
Fairhope	Emergency	911
Police Department	Non-Emergency	928-2385

**DEPARTMENT OF SAFETY AND ENVIRONMENTAL COMPLIANCE**

During Office Hours (Monday-Friday, 8AM-5PM)  
Safety and Environmental Compliance 460-7070

After Office Hours:

William Guess, Director

Beeper 582-4688

Anne Foster

Beeper 582-1398

Ben Rodrigo

Beeper 582-1481

Cedric Crawley

Beeper 582-1289

Wayne Dean

Beeper 582-0960

Denise Nims

Beeper 582-1002

**POISON CONTROL CENTER 1-800-222-1222**

## ACKNOWLEDGMENT

Date: \_\_\_\_\_

This is to certify that I have read and understand the material in the Right-To-Know Brochure. I also understand that further information is available to me within my department or division.

It is understood that Material Safety Data Sheets (MSDS's) which cover hazardous chemicals in my work area are available in my department or may be acquired through the Department of Safety and Environmental Compliance upon request.

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Signature

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