



THE UNIVERSITY OF
ALABAMA IN HUNTSVILLE

UAH GTA / GRA
Lab Safety Training

Training Purposes

- Ensure safety responsibilities are conveyed
- Promote safe working practices
- Identify hazardous materials
- Outline emergency procedures
- Provide guidance to ensure environmentally sound practices are used

Objectives

- UAH lab safety requirements
- Identify and classify hazards and hazmat
- Find chemical safety information
- Minimize exposure
- Handle chemicals safely
- Dispose of chemical waste
- Respond to emergencies
- Acquire assistance for repairs, emergencies, other safety information
- Train to recall specific hazard information

UAH Laboratory Safety Program

Laboratory Safety Manual

Review the lab safety manual it is your laboratory BIBLE for planning to work safely and responsibly and handling spills.

Specific Lab Hazards

- LASER Safety Manual
- Biological Safety Manual
- Radiation Safety Procedures

Identify Hazards

Principles of hazard recognition

- Be aware of all potential hazards in a process/situation.
Ex: potential for fire, toxic chemical exposure, electrical shock, explosive potential, chemical spray, other.
- Evaluate the potential for each
- Take protective measures to prevent exposure or injury.
If unsure, ask the responsible PhD.
- Walk through the lab at the beginning and end of each day to inspect for potential EHS problems.

Identify Hazmat

- OSHA 29 CFR 1910.1450 A chemical in which there is significant statistical evidence that acute or chronic health effects may occur in exposed employees.
- EPA 40 CFR 261.3
 - Listed Wastes
 - Characteristic Wastes
 - Flammable
 - Corrosive
 - Reactive
 - Toxic

Finding Chemical Safety Information

- Immediate Supervisor
- Material Safety Data Sheets (MSDS) now SDS under OSHA adoption of the GHS
- CRC Handbook
- Chemical Manufacturer
- Internet Resources
- OEHS

Safety Data Sheets

OSHA's Lab Standard 29 CFR 1910.1450, (aka subpart Z). This covers occupational exposure to hazardous chemicals in labs:

Employers must keep copies of the SDS for each hazardous chemical used or produced in the workplace and ensure that they are readily accessible during each work shift when employees are present.

Occupational vs. education vs. research vs. liability

Paper vs. computerized

Safety Data Sheets

- Chemical manufacturers, distributors, or importers must provide SDS as per the Hazcom Standard 1910.1200
 - When deciding what experimental processes will be used ensure that you have reviewed all SDS's and chemical hazards prior to the final decision to use the chemical
 - Substitute a less hazardous chemical whenever possible
 - Order exactly what you will need – hazwaste expense and risk of accidents increase significantly

Hazardous Chemical Hazard Categories

Physical Hazards

- Flammable
- Corrosive
- Reactive
 - Water reactive
 - Pyrophoric (Air reactive ignition)
 - Strong oxidizer
 - Acid sensitive

Health Hazards

- Asphyxiant
- Anesthetic
- Allergic sensitizer
- Systemic toxin
 - Teratogen
 - Carcinogen
 - Neurotoxin
 - Hepatotoxin
 - Nephrotoxin

Flammable Chemicals

- **Flashpoint:** the minimum temperature at which flammable or combustible liquids produce enough vapor to form an ignitable mixture with air. Needs ignition source to flash.
- **Flammable Chemical:** Chemicals with a flashpoint below 100F(OSHA). Which will flash earliest?
 - Methyl alcohol(11.10°C)
 - Benzene(-11°C)
 - Acetone(-18°C)
 - Acetaldehyde(-39°C)
 - Diethyl ether (-45°C)
 - Gasoline (-45°C)

- **Combustible Chemical:** Chemical with flash point above 100°F and below 200°F (OSHA)
- **Auto-Ignition Temperature:** Minimum temperature at which a substance can ignite in air without an ignition source being present.

When Handling Flammable Chemicals

- Put flammables in the flammable storage cabinet when not in use.
- Minimize amounts of flammable substances on lab bench.
- Do not work with or pour flammable chemicals near an open flame or heat source.
- Store flammables in a cool, dry, and well-ventilated place.
- Do not store flammable chemicals with oxidizers.
- Do not store flammable chemicals in a non-approved flammable refrigerator.

Handling Corrosive Chemicals

- Causes visible destruction of, or irreversible alterations in, living tissue by chemical action at the site of contact.
- Ph \leq to 2 or \geq to 12.5 (EPA)
- Includes both acids (Ex: sulfuric, nitric, hydrofluoric, etc.), and bases (ammonia, sodium hydroxide, etc...)
- Don't store acids and bases together!
- Add acids to water not the reverse. (Remember AA)

Handling Reactive/Unstable Chemicals

- A substance in which in the pure state, or as produced or transported, will vigorously polymerize, decompose, condense, or will become self-reactive under conditions of shocks, pressure or temperature (OSHA).

Examples:

- Water Reactive (sodium metal)
- Air Reactive (Pyrophoric materials) (t-Butyl-Lithium)
- Strong Oxidizing Agents (sulfuric acid)
- Acid Sensitive (strong bases)
- Peroxides (hydrogen peroxide)

Water Reactive Chemicals

- Chemicals that combine with water or moisture in the air to produce heat, flammable, explosive or toxic gases
- Examples: Sulfuric acid Hydrochloric acid
Sodium azide Alkali metals

Air Reactive Chemicals (Pyrophoric)

- Pyrophoric chemicals ignite spontaneously in air at room temperature.

Examples:

White phosphorous

Ammonium nitrate

Ammonium perchlorate

Ammonium permanganate

Benzoyl peroxide

Boron hydrides

Dinitrobenzene

Lithium hydride

Tert-butyl lithium

Oxidizing Agents

- Many are capable of detonation or explosive decomposition under conditions of strong heat, confinement, or a strong shock. Violent reactions occur when strong OA's are mixed with wood or paper.

Acid Sensitive

- Chemicals that react with acids to produce heat, flammable, explosive, and/or toxic gases

Examples: Alkali metals, hydroxides, carbonates, carbides, arsenic, cyanides, sulfides, and most metal.

Examples:

Alkali metals
hydroxides
carbonates
carbides
arsenic
cyanides
sulfides
most metal

Peroxcides and Peroxcide Forming Chemicals

- Chemicals that are dangerous because of their extreme sensitivity to shock, heat and friction. Peroxides are highly flammable.
- React with oxygen in ambient air and form shock sensitive peroxide crystals.
- Opening or shaking the bottle may cause detonation. Examples: Acrylonitrile, Butadiene, Styrene, Diethyl ether, Tetrahydrofuran, Divinyl ether, Sodium amide.

Toxic Chemicals

- Acute Toxicity: Caused by contact with a material for a short period of time.
- Chronic Toxicity: Repeated contact with a material for a long period of time.

Quantified by:

LD50: the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.

LC50: concentration of the chemical in air or water that kills 50% of the test animals in a given time (usually four hours).

Routes of Chemical Exposure

- Inhalation
- Absorption
- Ingestion
- Punctures

Chemical Exposure Limits – Air

- **Permissible Exposure Limit (PEL):** OSHA maximum regulatory level of a chemical to which workers can be exposed to over an 8-hour workday, 5 days per week.
- **Threshold Limit Value (TLV):** Annually updated levels that are more current, but not regulatory. Published by the American Conference of Governmental Industrial Hygienists (ACGIH).
- **Threshold Limit Value-Ceiling Limit (TLV-C):** The “ceiling” level that cannot be exceeded at any time.
- **Short Term Exposure Limit (STEL):** Maximum concentration for a continuous exposure period of 15 minutes (with a maximum of four such periods per day, with at least 60 minutes between exposure period)

LD₅₀ Values - Toxicity

>15,000 mg/Kg	Practically non-toxic
5,000-15,000 mg/Kg	Slightly toxic
500-5,000 mg/Kg	Moderately toxic
50-500 mg/Kg	Very toxic
5-50 mg/Kg	Extremely toxic
<5 mg/Kg	Super toxic

Examples Multiply these by 70 Kg to get human LD₅₀

Sucrose: 2970 mg/Kg

Sulfuric acid: 2410 mg/Kg

Benzene: 930 mg/Kg

Formaldehyde: 100 mg/Kg

Nicotine: 3 mg/Kg₂₄

Classes of Toxic Chemicals

- Asphyxiant: Deprive oxygen from the body ex: Nitrogen, CO₂, He, H, Ar, CN, CO, HS
- Anesthetics: Depress the CNS causing drowsiness, disorientation, and stupor. Ex: Ethanol at high concentrations, chloroform
- Irritants: Cause irritation of the mucous membranes. Ex: strong corrosives (H₂SO₄, HCl, HS)
- Allergic sensitizers: Produce an allergic reaction (skin rash, tearing, sneezing, coughing, bronchitis) Ex: Isocyanates, formaldehyde, Ni, Cr, latex gloves

Classes of Toxic Chemicals (cont.)

➤ Systemic Toxins

- Hepatotoxins- Cause liver damage- Carbon Tetrachloride, 1,2-Dichloroethane
- Nephrotoxins- Cause kidney damage
- Neurotoxins- Damage the nervous system-CS₂
- Reproductive toxins- Impair fertility, damage germ cells or disrupt fetal development

Mutagens

Teratogens

ex: ethylene dibromide, benzene, lead, mercury, cadmium

- Carcinogens- Cause cancer- benzene, asbestos, vinyl chloride, acrylonitrile, ethylene dibromide

Working Safely with Chemicals

- Use the MSDS to learn about the hazards
- Read the labels on the containers before use.
- Avoid distracting or startling others during handling of hazardous chemicals.
- Do not taste or smell chemicals.
- Never work alone.
- Do not eat, drink, or smoke in the lab or any chemical storage area.
- Use secondary containers when transporting chemicals to avoid dropping or spilling.

Working Safely with Chemicals (cont.)

- Keep chemical work areas clean.
- Confine long hair and loose clothing.
- Use proper PPE (safety glasses, lab coat, gloves, etc.)
- Work with chemicals in the fume hood.
- Notify supervisor immediately of chemical spills. Have a chemical spill kit readily available.
- Dispose of hazardous waste properly.
- Consult supervisor or EHS with any questions about chemical you are working with.
- Ensure all bottles are closed tightly.

Receiving Chemicals

- The package will be marked if shipped according to DOT regs 19 CFR 171.
 - Check for signs of leakage
 - Insure you have the SDS available to those handling
 - Open under hood when necessary
 - Add to your chemical inventory list
 - Store according to compatibility



Chemical Inventory

- Chemical Location
- Responsible person(s) for the area
- Emergency contact and phone number
- After hours contact
- Manufacturers name
- Chemical Name and CAS
- Container Size & Quantity
- Provide inventory to OEHS annually (electronically) and as new or increased quantity of existing chemicals are added
- Place the inventory in the front of the SDS Binder

Chemical Shipping Container Labels

- Packages containing chemicals are required by DOT regulations to be labeled and marked to indicate hazards.
- Packaging is required to be specific to the hazard.



Chemical Labeling

- Date all incoming chemicals upon arrival to the campus.
- Time sensitive substances must be tested and disposed of within the active life cycle and prior to becoming more hazardous. (THF, picric acid, peroxide formers)
- Working solutions must be clearly labeled identifying the contents, concentration, and date of creation.










Globally Harmonized System of Labeling Chemicals(GHS)

- Read and reread labels carefully to make sure that you use the right chemical and know the hazards
- Protect yourself based on the hazards
- YouTube Video (16.5 minutes)

http://www.youtube.com/watch?v=RvQNf1_Y7E84



Pictograms on Labels

HCS Pictograms and Hazards

<p>Health Hazard</p>  <ul style="list-style-type: none"> • Carcinogen • Mutagenicity • Reproductive Toxicity • Respiratory Sensitizer • Target Organ Toxicity • Aspiration Toxicity 	<p>Flame</p>  <ul style="list-style-type: none"> • Flammables • Pyrophorics • Self-Heating • Emits Flammable Gas • Self-Reactives • Organic Peroxides 	<p>Exclamation Mark</p>  <ul style="list-style-type: none"> • Irritant (skin and eye) • Skin Sensitizer • Acute Toxicity (harmful) • Narcotic Effects • Respiratory Tract Irritant • Hazardous to Ozone Layer (Non-Mandatory)
<p>Gas Cylinder</p>  <ul style="list-style-type: none"> • Gases Under Pressure 	<p>Corrosion</p>  <ul style="list-style-type: none"> • Skin Corrosion/ Burns • Eye Damage • Corrosive to Metals 	<p>Exploding Bomb</p>  <ul style="list-style-type: none"> • Explosives • Self-Reactives • Organic Peroxides
<p>Flame Over Circle</p>  <ul style="list-style-type: none"> • Oxidizers 	<p>Environment (Non-Mandatory)</p>  <ul style="list-style-type: none"> • Aquatic Toxicity 	<p>Skull and Crossbones</p>  <ul style="list-style-type: none"> • Acute Toxicity (fatal or toxic)

GHS – Container Label

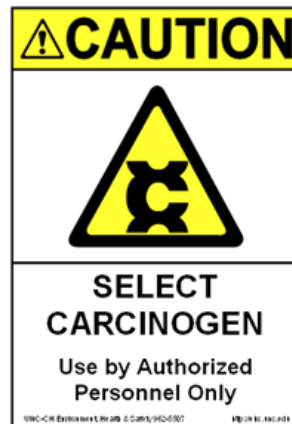
SAMPLE LABEL

<p>CODE _____ Product Name _____</p>	}	Product Identifier	<p style="text-align: center;">Hazard Pictograms</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div>	
<p>Company Name _____ Street Address _____ City _____ State _____ Postal Code _____ Country _____ Emergency Phone Number _____</p>	}	Supplier Identification	<p style="text-align: center;">Signal Word Danger</p>	
<p>Keep container tightly closed. Store in a cool, well-ventilated place that is locked. Keep away from heat/sparks/open flame. No smoking. Only use non-sparking tools. Use explosion-proof electrical equipment. Take precautionary measures against static discharge. Ground and bond container and receiving equipment. Do not breathe vapors. Wear protective gloves. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Dispose of in accordance with local, regional, national, international regulations as specified.</p> <p>In Case of Fire: use dry chemical (BC) or Carbon Dioxide (CO₂) fire extinguisher to extinguish.</p> <p>First Aid If exposed call Poison Center. If on skin (or hair): Take off immediately any contaminated clothing. Rinse skin with water.</p>		}	Precautionary Statements	<p>Hazard Statements</p> <p>Highly flammable liquid and vapor. May cause liver and kidney damage.</p>
			<p style="text-align: center;">Supplemental Information</p> <p>Directions for Use</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>Fill weight: _____ Lot Number: _____ Gross weight: _____ Fill Date: _____ Expiration Date: _____</p>	

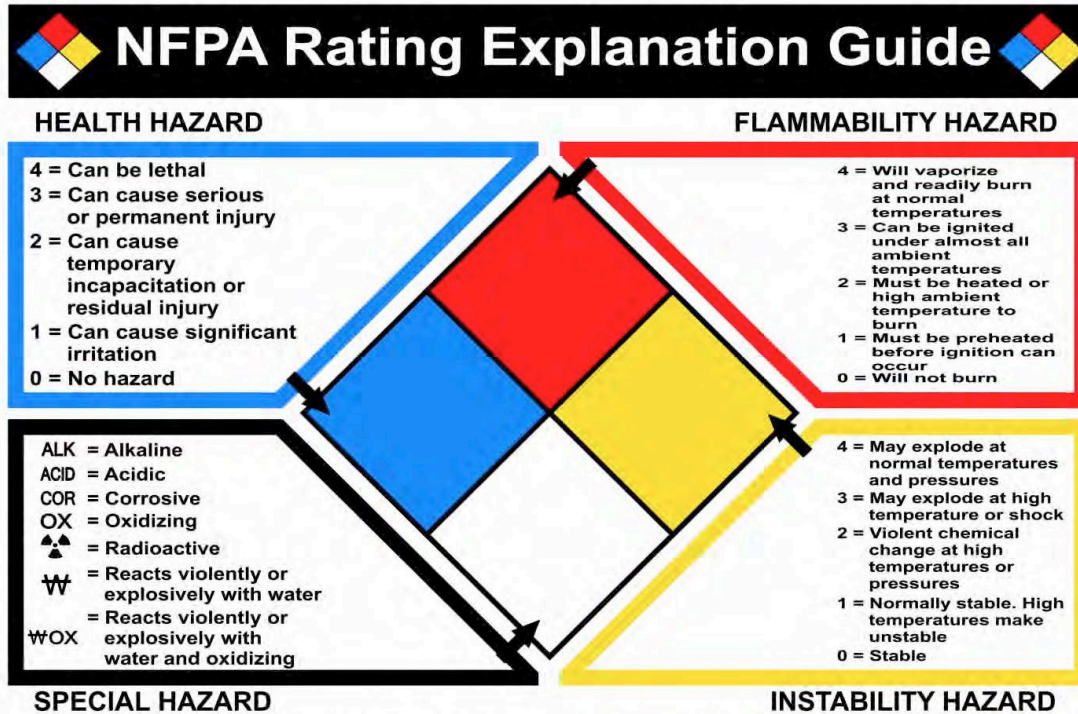
OSHA 3492-02 2012

Container Labeling

➤ Inspect chemical bottle labels



NFPA Diamond



This chart for reference only - For complete specifications consult the NFPA 704 Standard

NFPA-Chart_2 www.ComplianceSigns.com

Finding Chemical Information

Product Labels

MSDS / SDS

NFPA Fire Diamond

CYCLOHEXANE

TOTAL R11; R35; R66; R67; R68/69; R9; R16; R25; R33; R60; R61; R62

Content cyclohexane

Contains cyclohexane

Chemical Cyclohexane

Other Labels

EC No: 203-808-2 UN1145 CYCLOHEXANE

Tel: +33(0)1 41.26.33.44 - Tel: Vigencia / Emergency: +33(0)1 41.26.86.00

Frisch F10: Flamme
Handelt F11: Flamme
Chemische Substanz C1: Umweltgefährlich
Aktive H2: Schmelzpunkt
Schmelzpunkt H2: Schmelzpunkt
Wasser H2: Schmelzpunkt

Frisch F10: Flamme
Handelt F11: Flamme
Chemische Substanz C1: Umweltgefährlich
Aktive H2: Schmelzpunkt
Schmelzpunkt H2: Schmelzpunkt
Wasser H2: Schmelzpunkt

Content cyclohexane

Contains cyclohexane

Chemical Cyclohexane

Other Labels

EC No: 203-808-2 UN1145 CYCLOHEXANE

Tel: +33(0)1 41.26.33.44 - Tel: Vigencia / Emergency: +33(0)1 41.26.86.00

71536-EU1

MATERIAL SAFETY DATA SHEET Page 1
Metal Cleaner

HEALTH HAZARD 3
FLAMMABILITY 2
PHYSICAL HAZARD 1

1. Product and Company Identification

Product Code: DKA79
Product Name: Metal Cleaner
Manufacturer Name and Address: PPS Industrial, Inc.
 4325 Rosanna Drive
 P.O. Box 9
 Alcoa Park, PA 15101
Emergency Contact 1: Emergency Medical/Spill Info: (300)842-1300
Information Contact: Technical Information: (717)453-9010
Chemical Family: ALD1

2. Composition/Information on Ingredients

Number Component / Chemical Name	CAS #	Percentage	OSHA TWA	AGRETT	Other Labels
1. Ethanol 1-Beta	111-362	50.0 - 300.0 %	60/23 ppm	3/2/2	Flammable
2. Cellulose glycol monomethyl ether	112-984	50.0 - 250.0 %	Not Eval.	Not Eval.	No data
3. Quaternary	786-363	0.01 - 4.00 %	1 ppm	1/2/2	Irritant

3. Hazards Identification

Emergency Overview:
 Harmful or fatal if inhaled. May be corrosive. This product contains a chemical which causes skin burns. This product contains a solvent which causes irreversible eye damage. May be harmful if absorbed through the skin. Vapors may irritate and be harmful if inhaled. Vapors irritate eyes, nose, and throat. Vapors present at elevated temperatures irritate eyes, nose, and throat.

Routes of Entry: Inhalation? No | Skin? No | Ingest? No | Injection? No

Potential Health Effects (Acute and Chronic):
 INGESTION: Harmful or fatal if swallowed.
 EYE CONTACT: This product contains a chemical which causes irreversible eye damage.
 SKIN CONTACT: May be corrosive. This product contains a chemical which causes skin burns. May be harmful if absorbed through the skin.
 INHALATION: Vapor and spray may irritate if inhaled. Vapor irritates eyes, nose, and throat. Vapor present at elevated temperatures irritates the eyes, nose, and throat. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent bronchial and nervous system damage.

CHRONIC OVEREXPOSURE: Avoid long-term and repeated contact. This product contains a chemical which may cause adverse effects on the kidney, liver, blood and/or blood-forming tissue. This product contains a chemical which causes irreversible eye damage. May be harmful if absorbed through the skin. May cause irritation to either the liver, kidney, spleen, or testes.

Controlled by EPA, OSHA, DOT, and other agencies.



Lab Safety Rules

- Ensure your students and any lab workers know when, where, and how to, use safety showers and eyewashes. These must be flushed on a regular basis.
- Only perform work for which you are trained. Ask your lab supervisor or professor.
- Notify Professor of all injuries
- Know the hazards of the chemicals you work with and first aid.
- Wear protective eyewear, lab coat, gloves, long pants, closed toed shoes, restrain long hair
- Know emergency procedures
- Never work alone. Always use the buddy system.
- All students must sign the rules form, and you must keep a record of this in lab files.

Reduce Exposure to Hazards

- Engineering Controls: remove or reduce hazard by substitution, isolation, or ventilation. Ex: Hood.
- Admin Controls: Reduce exposure time, training, good work practices, hazard recognition, and control lab entry.
- PPE: Wear all required PPE and refer to the MSDS for additional information on protecting yourself and students

Reduce Exposure to Hazards (cont.)



Proper Use of Fume Hoods

- *Do not use fume hood as storage area*
- Look for air flow meter to verify airflow
- During use:
 - Work 6” within the fume hood, verify airflow
 - Avoid unnecessary storage of materials inside the hood
- Close the sash when not in use
- Do not ignore/silence alarm system
- After use:
 - Lower the hood sash
 - Cleanup all materials and spills inside the hood

Administrative Controls

- Implement operational procedures
- Ensure chemicals are closed tightly
- Label all chemicals and working stocks
- Store chemicals in cool, dry, well ventilated location. *Not on counter tops.*
- Inventory management. Dispose of time-sensitive materials, keep an active inventory list, maintain MSDS, contact OEHS for chemical management questions.

Inappropriate Lab Attire

- NO open toe shoes
- NO loose flowing clothing or hair (long hair tied)
- NO dangling jewelry
- NO tank tops, shorts, half pants, or mini skirts to avoid chemical contact with skin

Exposure Prevention

- Select PPE based on the chemical
- Mandatory PPE
 1. lab jacket or apron
 2. face shields and or goggles
 3. gloves suitable for the chemical in use
 4. closed toe shoes made of durable material

Chemical Hygiene

- Maintain a current chemical inventory and Safety Data Sheet's
- Keep all chemical containers closed while not in use.
- Keep aisles clear and all work surfaces free of chemical residues
- Avoid slipping hazards. Keep floor free from debris and spilled materials

Chemical Hygiene

- Never store materials on the floor or hazardous liquids above eye level
- Use non chromate glassware cleaners for easy disposal.
- Use all solvents under the hood and dispose of solvents in the properly labeled solvent can.
- Close all solvent containers when lab is completed.

Laboratory Hygiene

- Glass -Dispose in designated glass waste containers
- Sharps -Dispose in sharps containers
- Cylinders -Chain to a wall and store with valve cover on, label when empty
- Electrical -Use outlets appropriate for instrument, don't overload circuits

Lab Hygiene

- Lockout/Tagout tags must be removed by maintenance personnel only!
- All safety showers and eyewashes must be clear of lab furniture and electrical equipment
- Cylinders - Chain cylinders to a wall or non-movable table; Store with valve cover on; label when empty and call CRS for pickup.
- Electrical - Use outlets appropriate for instrument, don't overload circuits

Weekly Safety Checks

- Eye wash (purge)
- Fire extinguisher
- First Aid Kit
- Fume Hood
- Tubing, pressurized connections
- Chemical storage

Chemical Waste Disposal

- All chemical waste must be appropriately labeled
- Dispose of waste as soon as possible upon generating
- Submit a UAH Chemical Waste Inventory to the OEHS

Leaving the Lab?

- Turn off:
- Gas
- Water
- Power supplies
- Vacuum lines
- Compression lines
- Heating apparatus

Leaving the Lab?

- Identify and package waste, dispose properly
- Lock/out and tag/out defective equipment
- Decontaminate work surfaces and equipment
- Return unused equipment, apparatus, etc.
- Leave lab coat in the lab
- Wash/dry your hands
- Close and lock door

SECTION II – RESPONDING STO EMERGENCIES

Accident Response

Be prepared for emergencies

➤ Emergency Response Steps

1. Alert others in the area to the emergency
2. Protect yourself know escape routes
3. Help any person in need (First Aid Kit Location)
4. Alert appropriate authorities for help call 6911
5. Complete injury consultation form & accident report

Bloodborne Pathogens

- AIDS
- Hepatitis
 - Hep-B vaccines for designated persons
- No contact with blood or body fluids
- Wear protective equipment, especially gloves & safety glasses
- Biohazard Waste -“Red Bag”
- Sharps disposal containers

First Aid Safety Training

- OEHS offers the following classes for a small fee to UAH employees
 - Red Cross Standard First Aid (3 years)
 - American Red Cross CPR/AED (2 years)
 - Refresher classes for American Heart CPR/AED & Red Cross First Aid

Chemical Spill Clean-up

- Small spills (<5 liter) of materials that do not require respiratory protection
- spill kits must be available in chemical stock rooms and in areas of high chemical use
- departments are responsible for replenishing the spill kit items when used
- Call Police at 911 for all immediate response services

Chemical Spill Clean-up

- Police Officers must clear the area, collect chemical information and contact the OEHS
- If there are injured persons and the chemical is not identifiable pull the fire alarm and call 6911 from a campus phone

Types of Fire Extinguishers

Water
Class A Fires



CO2
Class B & C
Fires



Dry Chemical
Class A,B,C
Fires



Met-LX
Class D
Fires



Fire Extinguisher Use and Availability

To operate an extinguisher:

Pull

Aim

Squeeze

Sweep

① **P**ULL the pin

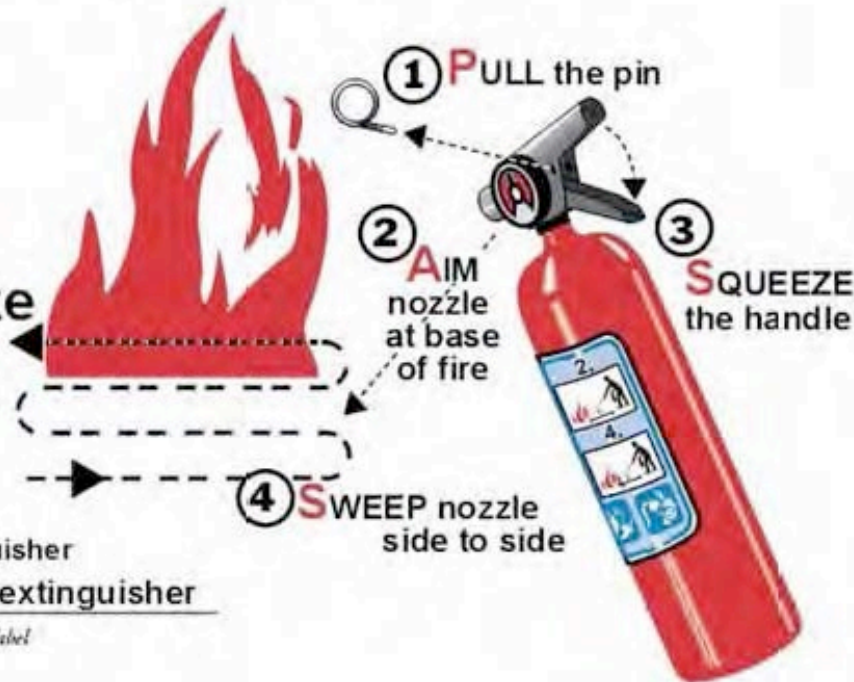
② **A**IM nozzle at base of fire

③ **S**QUEEZE the handle

④ **S**WEEP nozzle side to side

Know your extinguisher
Use the correct extinguisher

(Check your own extinguisher's label for detailed instructions.)



In Case of a Fire: R.A.C.E

- Remove anyone from the area
- Activate closest pull station
- Call 911
- Extinguish if safe and Evacuate

These steps do not have to be followed in sequential order. Assess the situation and determine the appropriate course of action.

Evacuation

- Notify people in the immediate area
- Lead students to the nearest stairwell and evacuate down. Never up.
- Mobility impaired persons should be taken to the stairwell and left on the landing. Tell the floor captain immediately if there are any persons on landings or remaining in the bldg.
- Proceed to the assembly area, insure all are accounted for.
- Do not leave or re-enter until the floor captain provides notice.

Severe Weather Refuge

- Upon notification of severe weather immediately take yourself and your class to the protective areas designated on Emergency Maps.
- If unsure where this is or there is not one designated go to the lowest innermost part of the building away from windows, doors, stairwells.
- Do not return to the classroom until the all clear is received from the floor captain.

Safety Practices

- Inspect work area daily
- Be an observer - stay alert
- Hygiene, Hygiene, Hygiene
- Best safety device - Plan ahead
- If you're not sure - Ask someone!!
- Report Injuries/Incidents/Illnesses to lab supervisor
- Report safety issues to the lab supervisor or OEHS

Acknowledge Training

➤ [Click here to acknowledge receipt of training](#)

– **If you have any questions contact:**

➤ Office of Environmental Health and Safety
Shelbie King Hall
301 Sparkman Drive
Huntsville, AL 35899

➤ oehs@uah.edu

➤ 256-824-6053