UNAM Safety Orientation

GENERAL EMERGENCY RESPONSE

- Call 6666 in an Emergency for Police, Fire, or Medical attention
- When you call 6666, please provide as much of the following information as you can:
  - Is this an Emergency?
  - Exact Location of Emergency
  - Type of Emergency:
    - Police
    - Fire
    - Medical
    - Chemical, Biohazard or Radioactive Incident
  - Brief Description of Emergency
  - Your name and phone number (optional but helpful for response to incidents)
- This information will help to ensure necessary help is sent promptly.

Primary Emergency Procedures for Fires, Spills and Accidents-1

- Attend to any person(s) who may have been contaminated and/or injured if it is safe to reach them.
- Use safety showers and eyewashes as appropriate.
- In the case of eye contact, promptly flush eyes with water for a minimum 15-minute period and seek medical attention immediately.
- For ingestion cases, contact 6666 for medical attention.
- In case of skin contact, promptly flush the affected area with water and remove any contaminated clothing or jewelry. If symptoms persist after washing, seek medical attention.

Primary Emergency Procedures for Fires, Spills and Accidents-2

- Notify persons in the immediate area about the spill, evacuating all non-essential personnel from the spill area and adjoining areas that may be impacted by vapors or a potential fire.

- If the spilled material is flammable, turn off all potential ignition sources. Avoid breathing vapors of the spilled materials. Be aware that some materials either have no odors or create olfactory fatigue, so that you stop smelling the odor very quickly.

- Leave on or establish exhaust ventilation if it is safe to do so. Close doors to slow down the spread of odors.

- Notify Laboratory Safety Committee at safety@unam.bilkent.edu.tr

Fire Emergency-1

Upon discovery of smoke or flames:

- Remove or notify people in life threatening danger
- Activate the fire alarm
- Contact the security desk, or call 6666, and provide the following information:
  - Your name
  - Exact location of the emergency
  - Size and type of fire (i.e. small garbage can fire)
- If you have been trained, feel capable of doing so, and with another individual use a fire extinguisher to extinguish the fire
- Evacuate the building using the nearest safe stairwell.

Fire Emergency-2

Upon activation of the alarm, everyone is expected to:

- Stop work
- Secure research materials
- Secure or take all personal belongings
- Close (DO NOT LOCK) all doors
- Proceed in a calm, orderly manner to the nearest stairwell exit

  DO NOT ATTEMPT TO USE ELEVATORS
- Enter the stairwell, move to the right on the stairs, proceed, down/up the stairs and exit the building at the GROUND LEVEL and report to your supervisor
- Return to workplace or comply with other instructions given by the proper authority
- Re-enter the building only when directed.

Hazardous Substance Emergency

- Evacuate the area immediately
- Close the door behind you
- Contact security at 6666 and give:
  - Your name & telephone number
  - Location of incident
  - Time & type of incident (i.e. spill, fire, leak)
  - Name & quantity of material(s) involved, if known
  - Extent of injuries, if any
  - Possible hazards to human health (e.g., toxic vapors)
  - Damage to property or environment

Chemical Spill Emergency-1

- Use safety showers and eyewashes as appropriate. In the case of eye contact, promptly flush eyes with water for a minimum 15-minute period and seek medical attention immediately.
- For ingestion cases, call 6666 for medical attention.
- In case of skin contact, promptly flush the affected area with water and remove any contaminated clothing or jewelry. If symptoms persist after washing, seek medical attention.

Chemical Spill Emergency-2

- If the spill is minor:
  - Use a spill control kit appropriate to control material spilled, if appropriately trained to respond.
  - If the spill is minor and of known limited danger, clean up immediately. Determine the appropriate cleaning method by referring to the MSDS. During clean up, wear appropriate protective apparel. The protective clothing required will depend upon the material spilled, the amount, and the airborne concentration. At a minimum, chemical resistant gloves and goggles should be worn.
  - Cover liquid spills with compatible absorbent material such as spill pillows or a kitty litter/vermiculite mix. Be sure to check compatibility. Powdered materials should be covered with wet paper towels (if compatible) to avoid dispersal. If appropriate materials are available, corrosives should be neutralized prior to absorption. Clean spills from the outer areas first, cleaning towards the center.

Chemical Spill Emergency-3

- If the spill is minor:
  - Place the spilled material into an impervious container, seal, and contact Laboratory Safety Committee for disposal.
  - If appropriate, wash the affected surface with soap and water. Mop up the residues and containerize for disposal.
  - A solvent, e.g. xylene, may be necessary to clean surfaces contaminated with a non-water soluble chemical. Be sure to check the solubility of the spilled material and use the least toxic effective solvent available. Be sure to wear appropriate protective equipment.
- Supplies and equipment must be assembled and kept on hand to deal with any potential spill. The extent to which spill equipment is available depends on the chemicals, the process, and the personnel working in the lab.

Radioactive Hazard Emergency

- Do not take any action unless you have been trained to respond, except to summon assistance.
- If it is safe to do so, attend to anyone who may have been contaminated and/or injured. Use safety showers and eyewashes as appropriate.
- Notify 6666 for medical help.
- Remove all personnel from the immediate spill area to a safe meeting location in or near the lab.
- Shut off ventilation, close windows and doors, and turn off hoods if possible. Do not do this if radioactive gas is involved, as release to the environment is preferable in that case.
- Check all personnel for skin and clothing contamination.
- Decontaminate personnel and re-survey until radiation levels are at background.

Bloodborne Pathogen Emergency

- Remove all contaminated clothing
- Wash the exposed area thoroughly with soap & running water for at least 15 minutes. Use non-abrasive, antibacterial soap if possible
- Go to Hospital Emergency Room
- Medical provider will evaluate employee to determine exposure and best course of action, including post-exposure treatment (prophylaxis), for follow-up to exposure.
- File an exposure incident report with your supervisor

Lab Safety

Chemical Safety

- Check out the material safety data sheet (MSDS) before handling chemicals for the first time. (UNAM MSDS folder is kept in the common area at the 2nd floor.)

- Wear your personal protective clothing and gloves. Use half / full face mask and goggles.

- Handle the chemical carefully and in a proper way. If you need to carry it somewhere, use a bucket. If it is in large quantity, open it in the fume hood. Do not forget to close the hood protective window.

- Prefer to use in smaller quantities when possible. Be careful when pouring it in beakers.

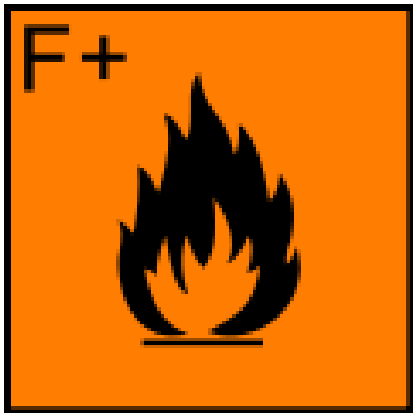
- Keep chemicals according to their acidity. Never store highly acidic solutions with basic chemicals. Do not store hydrofluoric acid (HF) solution in glass bottles. Store it in Teflon bottles.

Symbols

explosive

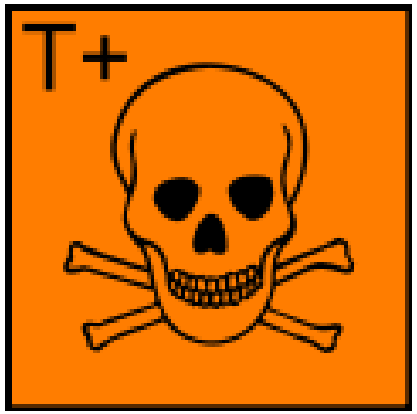
oxidizer

extremely flammable



highly flammable

very toxic



toxic

harmful

irritant

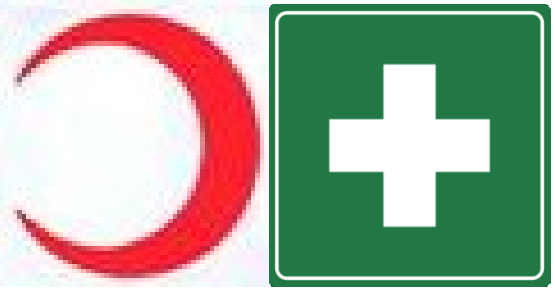
corrosive

Environmental hazard

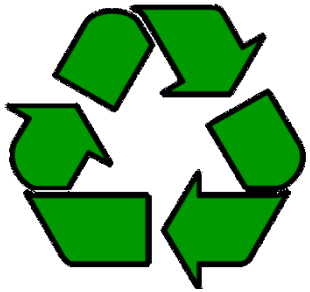
Biohazard

Eyewash

First Aid

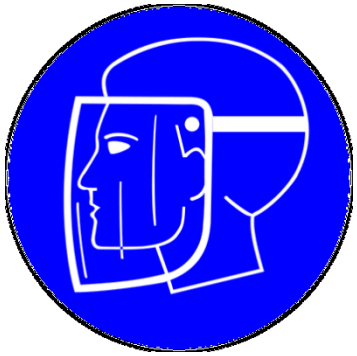


Recycle



Fire extinguisher

Face protection



Gloves

Protective Clothing

Respiratory

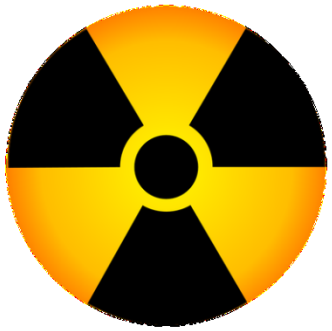
Flammable

Non-flammable

High voltage

Laser hazard

Optical hazard



Radiation

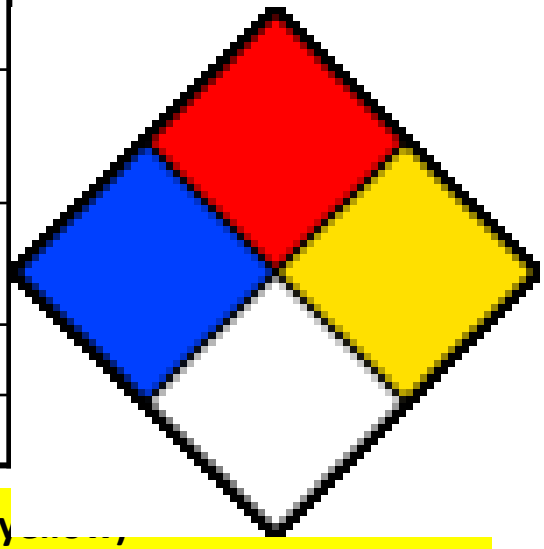
Radioactive

Health	2
Fire	3
Reactivity	0
Personal Protection	H

Material Safety Data Sheet
Acetone MSDS

MSDS

Health (blue)	
4	cause death or major residual injury
3	serious temporary or moderate residual injury
2	cause temporary incapacitation or possible residual injury
1	Cause irritation
0	No health hazard



Flammability (red)	
4	rapidly or completely vaporize
3	ignited under almost all ambient temperature conditions
2	Must be moderately heated or exposed to relatively high ambient temperature before ignition can occur
1	Must be pre-heated before ignition can occur
0	Will not burn

Instability/Reactivity (yellow)	
4	capable of detonation or explosive decomposition
3	Capable of detonation or explosive decomposition but requires a strong initiating source
2	Undergoes violent chemical change at elevated temperatures and pressures
1	Normally stable, but can become unstable at elevated temperatures
0	Normally stable, even under fire exposure conditions, and is not reactive with water

White

- **W**: reacts with water
- **OX** or **OXY**: oxidizer
- **COR**:corrosive
- **BIO**: biological hazard
- **POI**: poisonous