STANDARD OPERATING PROCEDURE - BENZENE

Date: _____
Principal Investigator: _____
Room & Building: _____
Phone Number: _____

#1 PROCESS

Benzene use in the laboratory.

#2 DESCRIBE PROCESS, HAZARDOUS CHEMICAL OR HAZARD CLASS

Varies by specific lab.

#3 POTENTIAL HAZARDS

Benzene is an OSHA Regulated Carcinogen, highly flammable, and central nervous system depressant.

It is also a chronic toxin affecting the blood-forming organs. Exposure to benzene affects the blood and blood-forming organs such as the bone marrow, causing irreversible injury; blood disorders including anemia and leukemia may result.

Benzene is a fire and explosion hazard with strong oxidizers such as chlorine, oxygen, and bromine and with strong acids.

#4 PERSONAL PROTECTIVE EQUIPMENT

Gloves should be used when potential for skin contact exists.

- Disposable nitrile gloves provide minimum protection for general laboratory use and should be changed frequently or whenever contamination is suspected.
- Viton gloves are required when hand immersion in benzene is expected.

Chemical splash goggles should be worn when a splash hazard exists; safety glasses with side shields are required at a minimum when benzene is used in a closed system.

A laboratory coat should be worn when working with chemicals.

A chemically resistant apron should be used if transferring or using large quantities of benzene.

#5 ENGINEERING/VENTILATION CONTROLS

Work with benzene in fume hood or with local exhaust ventilation. Use only in areas free of ignition sources.

#6 SPECIAL HANDLING PROCEDURES AND STORAGE REQUIREMENTS

Keep in a tightly closed container. Store in rated flammable liquid storage cabinet or flammable liquid storage room. Store with compatible materials (e.g., away from oxidizers).

#7 SPILL AND ACCIDENT PROCEDURES

In the event of skin contact, immediately wash with soap and water and remove contaminated clothing. In case of eye contact, promptly wash with copious amounts of water for 15 minutes (lifting upper and lower eyelids occasionally) and seek medical attention.

In the event of ingestion, obtain medical attention immediately.

In the event of inhalation of large amounts of benzene, move the person to fresh air and seek medical attention at once.

Small spills: Remove all ignition sources. Absorb with broad spectrum absorbent and transfer absorbed material to a closed container. Label and date as hazardous waste. Contact the OHES for pickup.

Large spills: Notify others in room of spill. Extinguish all ignition sources. Evacuate room/immediate area. Call OHES for cleanup. Post room with warning notifying others of spill. Prevent unnecessary entry into area until arrival of the OHES response team. Respiratory protection should be used during spill cleanup. Provide assistance and information to spill responders.

#8 DECONTAMINATION PROCEDURES

Varies by specific process.

#9 WASTE DISPOSAL PROCEDURES

Collect and label as hazardous waste. Contact the EHS 292 1284 for pick up.

#10 MSDS LOCATION---College Safety Page-Chemical MSDS