

Environmental Health & Safety

Laboratory Safety Unit

Chematrix: High Hazards

Below is a list of the High Hazards that may be found during Annual Safety Inspection

- All laboratory personnel have completed all required annual training and the records are maintained, including site-specific training.
- Written protocols (SOPs) are available for activities performed in the lab.
- The lab has a current chemical inventory that is actively updated (upon arrival, consumption, or discard) and has been reconciled within the last year.
- Lab personnel have covered legs, closed shoes (including heel) and are not wearing any unsecured materials (hair, jewelry, tie, etc.).
- All aisles are clear of materials/equipment and paths of egress are unobstructed.
- The general housekeeping was found acceptable (counter tops uncluttered/clean, floors clean/dry) and nothing is impeding the path of egress (aisles are clear of materials/equipment).
- A safety shower is within 75 feet of the lab, and unobstructed.
- A university approved eyewash station is available (approved style and supplied with tempered water).
- The eyewash is unobstructed.
- Personal protective equipment (PPE) is available, is in good condition, and is the correct PPE for the procedure or hazard.
- Chemicals are separated and stored by chemical classification.
- A flammable storage cabinet is in use if the lab has greater than 10 gallons of flammable/combustible liquids present.
- Biological safety cabinets have been certified within the last 12 months.
- Biological safety cabinets are free of excess items.
- Chemical fume hoods have been certified within the last 12 months.

- The chemical fume hood is free of excessive items.
- Chemical fume hood sash is at or below working height.
- Hazardous materials are used only within a local exhaust system.
- The correct local exhaust system is available for special equipment and procedures (fume hood, biological safety cabinet, canopy hood, glove box,) and has been certified in the last 12 months.
- For Cryogenic liquids, a face shield and thermal gloves are available and are used for dispensing cryogenic liquids.
- Rooms containing multiple cryogenic liquid tanks or large number of compressed gas cylinders have an operational oxygen sensor system to provide safety for personnel.
- A fire extinguisher is properly mounted on the wall or in a cabinet, clear and unobstructed, and within 50 ft.
- Hazardous waste containers (biological, chemical, sharps, etc.) are not over-filled (about 3/4 full).
- Hazardous waste containers (biological, chemical, sharps, etc.) are disposed of within 90 days of generation.
- Hazardous Waste Management Unit's guidelines are used for the disposal of fluorescent dyes/Ethidium Bromide.
- All materials are being disposed of in the correct containers (broken glass, sharps containers, biohazard waste, antineoplastic waste).
- Liquid biological waste is chemically decontaminated with bleach (or other NYS-DEC approved surface disinfectant effective for the agents used in the lab) prior to disposal.
- Biohazard labels (printed in color) are affixed to all powered equipment used to process or store materials handled at BSL2. Transport containers are also labeled. Refrigerator and freezer labels list the agents being stored, and contact information of two responsible individuals if used in a shared space. [BSL2 & BSL2+]
- A sink is available for hand washing (may be in the adjoining lab) and approved hand soap is available for use.
- Biological safety cabinets and other containment equipment are used with aerosol producing tasks (blending, grinding, sonicating, shaking, opening containers whose internal pressures may be different from ambient pressure) unless equipment design provides for aerosol containment.
- Centrifuge safety cups or sealed rotors are used as approved by the IBC or a Centrifuge Spill Plan is posted. [BSL2 pathogens, all BSL2+]

- All persons working with human blood, body fluids, or tissues; primary human cells; and human cell lines (including established lines) have been offered the hepatitis B vaccination series and this is documented with University Health Services (UHS).
- A NYS-DEC approved surface disinfectant is available and effective for the agents used in the lab.
- All work at BSL2+ (excluding microscopy) is conducted either in the biological safety cabinet or in other aerosol containment unless approved by the IBC (and then face protection is required).
- Used pipette tips are decontaminated with bleach (or other disinfectant, as approved by the IBC) inside the biological safety cabinet for 10 minutes prior to red bag waste disposal. [BSL2+]
- The laser has been registered with EH&S and the Laser Safety Checklist has been completed and signed by lab users. [Class 3B&4 lasers]
- Operators wear laser eye-goggles labelled for wavelength(s) of beam used. [Lasers]
- The laser controlled area has an appropriate laser sign at each entrance. [Lasers]
- The room is free of cardboard, Styrofoam, and other porous materials (paper towels, paper products, bench pads, etc.). [Environmental rooms]
- Dry ice and dewars are not kept or used in the environmental room.
- No mold is present and condensation/pooled water is cleaned or removed regularly. [Environmental rooms]