Disposal Guidelines

General Rules

- Anything that has been used with bacteria needs to be discarded in biohazard waste.
    - While the lab is not Biosafety Level 2 currently, microbes containing recombinant DNA are treated in a similar way to biohazardous waste in terms of segregation. Generally, that means we still need to dispose of plates in biohazard waste, as well as anything that has been contaminated with microbes containing rDNA.
- Anything that will tear the clear trash can liners should be disposed of in sharps waste (razor blades, needles, glass slides, coverslips, microfluidic chips, etc.) or broken glass waste (broken flasks, test tubes, etc.).
    - If sharps are discovered in the general trash from our lab, the lab will be **immediately** inspected by EHS.
    - Pipette tips should be disposed of in biohazard waste, not sharps
- If you have any questions about these guidelines, please find Andrew or Razan.

Bacterial Cultures and Miniprep Waste

All liquid waste from bacterial cultures and minipreps should be pooled in a glass bottle or flask and sanitized with bleach.

For glass test tubes:

1. Add 10% bleach (~5-10% of culture volume) to each tube
2. Pour contents of tube into glass bottle.
3. Rinse tubes with DI H_2O (~culture volume) and pour the rinse H_2O into glass bottle
4. Place test tubes in white basket for washing
5. Place test tube caps in bucket in sink
6. Determine (approximately) the volume of waste in glass bottle
7. Add a volume of bleach equal to ~10% of the waste to the bottle
8. Add cap to bottle and let sit for ~30 minutes or until the turbidity of the solution disappears
9. Bleached liquid can be poured down the sink and followed with rinse water for 15-30 seconds

For flasks:

1. Pour contents of flask into glass bottle
2. Rinse flask with DI H_2O (~culture volume) and pour the rinse H_2O into glass bottle
3. Follow steps 6-9 for tubes

For 96-well plates:

1. Rinse plate with 10% bleach over a plastic beaker/bucket
2. Shake out liquid from plate into beaker/bucket
3. Plate should be discarded in biohazard waste or rinsed with 10% bleach or ethanol and dried if the plate will be used again
4. Liquid should be treated as in steps 6-9 for tubes

Miniprep waste

Waste from minipreps (media from cultures and flow-thru from columns) should be pooled and treated as in steps 6-9 for tubes.

Gloves

Gloves that are not contaminated with cell material or chemical waste can be disposed in general trash. Gloves that are contaminated with cell material or chemical waste (e.g. Gel Red, acid, etc.) should be placed in biohazard waste.

Paper towels and bench liner

Paper products that are not contaminated with cell material or chemical waste can be disposed in general trash. Paper products that are contaminated with cell material or chemical waste (e.g. Gel Red, acid, etc.) should be placed in biohazard waste.

Agar plates

Plates should be wrapped in parafilm or tape and discarded in biohazard waste.

Microfluidic Experiments

Chips – All chips must be discarded in sharps waste (red sharps containers in scope room and by UV/Ozone cleaner).

Lines – Used lines should be discarded in biohazard waste

Syringes – Used syringes should be discarded in biohazard waste

Pins and luer stubs – pins and luer stubs should be reused after cleaning by sonication in ethanol. If pins and stubs need to be discarded, they should be placed in sharps waste.

Sharps

All needles, razor blades, microfluidic chips, glass slides and coverslips and any other small items that would tear the trash can liners need to be discarded in the red sharps containers (in the scope room and by the UV/Ozone cleaner). Filled sharps containers should be sealed according to the instructions on the container and placed in a biohazard waste bin. New sharps containers are located under the fume hood.

Broken glass and glass chemical containers

Small pieces of broken glass should be placed in sharps containers. Larger pieces of glass (such as broken glassware) should be placed in the broken glass box under the shakers, after being decontaminated if there was cell material in the glassware. Glass reagent bottles should be rinsed three times, then placed in the broken glass box, and the caps should be placed in regular trash.

- *Note:* rinse water from reagent containers should be discarded in the appropriate liquid waste (e.g. rinse water from solvent bottles should be discarded in organic waste, rinse water from acid bottles should be placed in acid waste).

When the broken glass box is full, seal with tape, mark the outside “broken glass” and place the box on the Keck Hall loading dock.

Pipette tips and serological pipettes

Pipette tips should be discarded in biohazard waste. Serological pipettes that have been used with cell material should be discarded in biohazard waste. Serological pipettes that have not been used with cell material should be placed in the pipette disposal box. When that box is full, it should be taped and marked for disposal in the normal trash.

Biohazard Waste

Biohazard waste is placed in the biohazard waste boxes that EHS provides. The box should be sealed on the bottom with clear packing tape, and lined with a red biohazard bag. The box should be filled only 3/4 full, and should not weigh more than 40 pounds. Once full, the bag should be tied shut with a wire tie, and the box should be closed. Lab and EHS labels are on the side of the biosafety cabinet and should be applied to the box at the site marked “generator label”. Full biohazard boxes should be taken weekly to the loading dock of George R. Brown Hall.

Liquid Waste (non-biological)

Non-biological liquid waste should be discarded in dedicated waste containers. Acid waste is next to the acid cabinet. Organic waste is on the chip bench. Ethidium bromide waste is at the gel area.

Gel waste

Used gels should be placed in the 5 gallon bucket under the gel area. Used buffer should be poured into the 5 gallon carboy at the gel area.