

ENVIRONMENTAL HEALTH & SAFETY
THE UNIVERSITY OF TEXAS AT TYLER



HAZARDOUS WASTE
PROGRAM FOR
LABORATORIES

2023

THE UNIVERSITY OF TEXAS AT TYLER HAZARDOUS WASTE PROGRAM:

All Wastes:

- Treat all waste as hazardous unless otherwise known.
- All wastes should be kept in the designated Satellite Accumulation Area (SAA) in the Lab
 - This area MUST be marked with EH&S approved signage
- EVERY waste container MUST be labeled appropriately
 - ALL sections of the label must be completed
 - If a section is not applicable mark or write “N/A”
- A Satellite Accumulation Area Log must accompany every SAA.
- Each time a unique waste container is added to the SAA it should be noted on the accumulation log
 - Chemical names must be spelled out, abbreviations and formulas are not acceptable
 - Each Container MUST be individually labeled and have a container number that ties it to the Satellite Accumulation Area Log
 - Each container must be weighed, and pH measured when added to the SAA, with the exception of bulk containers.
 - The date, time, and initials of the PI or instructor must be recorded on the Satellite Accumulation Area Log when a waste is added.
- A Container Waste Accumulation Log must be completed for each **bulk** container within each SAA
 - A **bulk** container is a larger container that similar experiment wastes are bulked into at the end of each experimental process. (e.g. a researcher generates acid waste as part of their experimental process, they keep a large carboy in the SAA to collect acid waste as it is generated, this is a bulk container, each addition to the container is logged)
 - A separate Container Waste Accumulation Log must be complete for each **BULK** container that compatible wastes are added to
 - Each time more waste is added to the container, it should be noted on the accumulation log
 - Each BULK container MUST be individually labeled and must be listed on the Satellite Accumulation Area Log.
 - Bulk containers are weighed, and pH measured when they are full, at which time the information is added to the Satellite Accumulation Area Log.
 - A bulk container is considered full when liquid is two inches from the top.
 - All Container Waste accumulation logs are to be kept in a binder in the SAA. NOT taped to the container(s)
- All SAAs MUST have secondary containment and waste containers kept in secondary containment at all times

Hazardous Waste (per RCRA):

- Hazardous Wastes (as defined by RCRA) MUST be labeled with a HAZARDOUS WASTE label.
 - These are the neon yellow stickers that say “Hazardous Waste” in red at the top
 - EVERY container MUST be labeled AS SOON AS it becomes waste, and ALL portions of the label MUST be completed at the time it is labeled.

- Use the following information to determine the appropriate EPA waste code for your RCRA hazardous waste:
- RCRA Defined Hazardous Waste:
 - Characteristic waste (D Codes):
 - D001: Ignitable/Flammable: Flash point <140°F
 - D002: Corrosive: pH <2 or >12.5
 - D003: Reactive:
 - Explosive
 - Oxidizers
 - Reacts with water
 - Creates toxic gases under ambient conditions
 - Thermally Unstable
 - Reacts violently with mild acids/bases
 - D004-D043: Toxic:
 - Any of the “D” Listed Wastes Listed on the following page: https://www.ecfr.gov/cgi-bin/text-idx?SID=ce0006d66da40146b490084ca2816143&mc=true&node=pt40.26.261&rgn=div5#se40.28.261_124
 - Since we do not run analysis on our wastes to determine levels of these toxic materials, any amount of any of the listed substances in your waste triggers the use of the corresponding code.
 - Listed Waste (F, P, U, K Codes):
 - These are wastes that the EPA has labeled as hazardous based on various hazards they pose to the environment
 - These wastes can be found here: <https://www.epa.gov/hw/defining-hazardous-waste-listed-characteristic-and-mixed-radiological-wastes#FandK>
 - The “P” and “U” lists are searchable by CAS#
 - The “F” list is searchable by chemical name
 - NOTE:
 - UT Tyler will never produce any “K” listed wastes
 - “P” listed wastes are considered “Acutely Hazardous” if your waste is on this list **notify EH&S Immediately**
 - “F” listed wastes are for specific processes, UT Tyler may generate a few solvents that fall into these categories these typically come from gen chem and art
 - “U” listed wastes are **UNUSED** and in the original container-these usually only originate from laboratory or chemical storage clean outs considered “Legacy Waste” left behind by a previous faculty member or PI.
- For chemicals in their original containers: All of the information needed to properly classify your waste should be on the SDS for the material

- For waste mixtures (spent chemicals after experiments) you should be able to manually check the pH, any other characteristics can be found on the SDS's for the various components of the mixture
 - IF the reactions in the experiment neutralize any hazardous components of the original materials, then note this on the Satellite Accumulation Area Log – ONLY list the CURRENT hazard classes for the waste. (e.g. acid – base reactions produce a neutral product but may still contain a toxic metal-depending on the protocol performed. You would not list the waste as corrosive because the acids and bases have been neutralized, you would list the waste code for the toxic metal)

Regulated Wastes (still toxic/carcinogen/mutagen/aquatic hazard)

- Many of your wastes may not fall into any of the above categories of Hazardous Wastes but they may still be dangerous
- Consult the SDS for any hazards that may not fall into the categories above
 - Carcinogen
 - Aquatic Hazard
 - Mutagen
 - Teratogen
 - Any kind of Environmental Hazard
- If the waste falls into any of these categories and is not a RCRA Hazardous Waste, we still manage it for special disposal.
- Examples of these types of material include: ethidium bromide gels, DNA stains, etc.
- These wastes will receive a "REGULATED WASTE" label with the appropriate hazards noted.
- Each waste container must have its own label completed in entirety. Mark N/A for any sections that do not apply.
- All logs are to be used in the same way as they are for hazardous waste.
- This waste is handled as hazardous waste even though it is not labeled as such.
- This waste is disposed of with hazardous wastes due to the risks they pose to the environment.
- TREAT THESE WASTES AS HAZARDOUS IN ALL OTHER ASPECTS-handling, storage, disposal, containment, etc.

Universal Waste:

- These are wastes that are normally considered hazardous, but the Texas Commission on Environmental Quality (TCEQ) has made special provisions and, therefore, are not considered RCRA Hazardous Wastes.
- These include:
 - Batteries (other than alkaline)
 - Mercury Containing Bulbs (compact fluorescent, standard fluorescent, halogen, projector bulbs)
 - Paint and Paint Related Waste
 - Used or unused paint;
 - Spent solvents used in painting (for example, combinations of thinner and paint, lacquer, or varnish);

- Personal Protective Equipment (PPE), contaminated rags, gloves, and debris resulting from painting operations;
 - Coating waste paint, overspray, overrun paints, paint filters, paint booth stripping materials, paint sludges from water-wash curtains;
 - Cleanup residues from spills of paint (this excludes cleanup residues from a spill of PPRW being managed as UW);
 - Cleanup residues from painting and paint removal activities; and
 - Other paint-related wastes generated as a result of the removal of paint.
- These wastes receive a “Universal Waste” label with all appropriate information completed.
 - These wastes still require special disposal and many of them are recycled.
 - Contact EH&S for disposal of these items.

Unknown Wastes:

- Your waste MUST be classified/identified and labeled at the moment of generation.
- EH&S will not accept any “unknown” wastes for disposal.
- Contact EH&S for assistance in identifying unknown wastes.
- The burden of costs incurred in the identification of unknown wastes lies with the department that generated the waste.

Scheduling a Pick Up:

- Confirm all wastes are appropriately labeled, logged, classified, and weighed. If you need assistance with any of these contact EH&S.
- Once your wastes are ready for pick up, submit a hazardous waste pick up request through BioRAFT.
- EH&S will contact you to arrange pickup and disposal of your waste.
- Please note, due to storage space restrictions, EH&S may not be able to remove wastes from lab spaces until off-campus transport can be arranged with a waste disposal contractor.

IF YOU ARE EVER IN DOUBT OR ARE UNSURE OF WHAT TO DO CONTACT EH&S BEFORE YOU DO ANYTHING (903)566-7011 SAFETY@UTTYLER.EDU