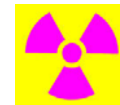


FAU Radioactive Waste Disposal Guidelines



Radioactive waste containers are furnished by EH&S and include: Solid/LSC vials—5 gal step cans & plastic bags; Aqueous liquids—plastic carboys (1—5 gal sizes); Sharps —plastic “sharps” containers. All radioactive waste must be properly packaged, labeled, and stored in the proper radioactive waste storage area of your lab. Label each container with an EH&S waste tag, an estimated activity for each isotope and a RSO-11 log form, which should be updated as material is added to the container. Contact EH&S, 561-297-3129, for a waste pickup or if you have any questions regarding these rules.

SOLID WASTE

1. Segregate isotopes by Half Life:

- ^3H , ^{14}C , ^{45}Ca all have >90 day $\frac{1}{2}$ life and should be placed in the same step can.
- ^{33}P & ^{51}Cr have similar $\frac{1}{2}$ lives & should be placed in the same step can.
- ^{32}P , ^{35}S , & ^{125}I must be placed in their own separate step can.

2. Solid Waste must not contain any of the following items:

- Liquid, Liquid Scintillation Vials, Lead, Sharps, or Biohazardous material

3. Source Vials (when empty or no longer used) must be bagged with a copy of the applicable RSO-3 form for the vial and placed in the radioactive waste storage area of your laboratory.

AQUEOUS LIQUID WASTE

1. All isotopes can be placed in the same aqueous liquid waste carboy.

2. NO SINK DISPOSAL—all liquid waste must be analyzed, recorded, and processed by EH&S.

3. The generation of MIXED liquid waste is not allowed unless approved by the RSO (*ex. Containing organic solvents or other hazardous agents*). If approved, MIXED waste must be placed into the appropriate container for the specific solvent. These are also provided by EH&S and must be labeled with the chemical constituents and isotopes present.

4. RINSES—First rinses or washings of glassware or equipment used to handle isotopes must be placed into your aqueous liquid waste carboy. Second and third rinses, when proven to be at background level, can be placed down the drain.

LIQUID SCINTILLATION VIALS

1. All LSC vials used, including wipe counting, must be emptied into your aqueous liquid waste carboy.

If a wipe sample is background, the vial contents can be drain disposed (if no organic solvent is present in the scintillation cocktail) and the vial can be disposed of as regular trash or re-used.

2. Once emptied, all vials must be tightly capped to prevent leakage of any residual liquid. The vials can be placed back into the original cardboard shipping trays or into a separate 5 gallon step can which will be provided by EH&S.

3. Segregate vials by isotope Half Life:

- ^3H & ^{14}C can be placed in the same container. Unlike solid and liquid waste, ^{45}Ca must be placed in a separate container since disposal methods for LSV differ from that of liquid and solid waste.
- ^{33}P & ^{51}Cr have similar $\frac{1}{2}$ lives and can be placed in the same container.
- ^{32}P , ^{35}S , ^{125}I , & ^{45}Ca must be placed in their own separate container.

BIOLOGICAL RADIOACTIVE WASTE

1. Radioactive solid waste that contains biohazardous material must be stored in a separate waste container provided by EH&S. This container must be labeled as “Radioactive” and “Biohazardous”.

2. Sharps must be placed in a plastic “sharps” container and labeled as “Radioactive”.

3. Animal carcasses must be double-bagged, labeled as “Radioactive”, & stored in an approved freezer until removed by EH&S.

4. DO NOT AUTOCLAVE biological/radioactive waste unless approved to do so by EH&S.

5. Segregate by isotope half life as listed above in the Solid Waste section.