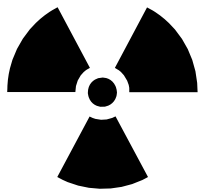


University of Delaware Proper Disposal of Radioactive Waste

ALL RADIOACTIVE WASTE MUST BE DISPOSED OF THROUGH THE DEPARTMENT OF OCCUPATIONAL HEALTH & SAFETY 831-8475
<http://www.udel.edu/OHS>



NOTE! Disposal of radioactive material in a manner other than that defined in this Guide may result in injury to the waste handler, improper release of radioactive material to the environment, or regulatory fines.

EMPTY SHIPPING BOXES AND PACKING MATERIAL

Can be disposed to regular lab trash PROVIDED--

- a wipe test of the package confirms that no contamination is present (Wipe must measure less than 100 DPM), AND
- all radioactive labels and markings have been removed from the package or obliterated.



SOLID

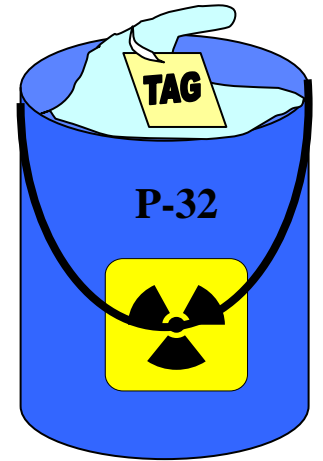
Examples: benchpaper, pipette tips, gloves, old radioisotope stock vials, containers after liquids within have been decanted into LIQUID carboy

NO lead pigs or shielding
NO containers with >0.5 milliliters of liquid
NO chemical or biological hazards

Place solid waste in the *appropriate* DOHS-supplied plastic or metal 5 gallon pail. The pail must be lined with a plastic bag.

- Solid waste pails are marked with the radiation symbol and the radioisotope(s) that may be deposited inside. The color of the pail also indicates which radioisotope(s) may be deposited-- H-3 and C-14 (black), P-32 (blue), S-35 (yellow), I-125 (red), etc.
- If an item of waste is contaminated with more than one radioisotope, consult with DOHS prior to disposal.
- Sharps (needles, razor blades, etc) must be placed inside a rigid container prior to disposal in a solid radioactive waste pail.
- Containers with **small** amounts (<0.5ml) of liquid may be disposed in solid radioactive waste pails (e.g. Eppendorf tubes, small test tubes, old radioisotope stock vials)

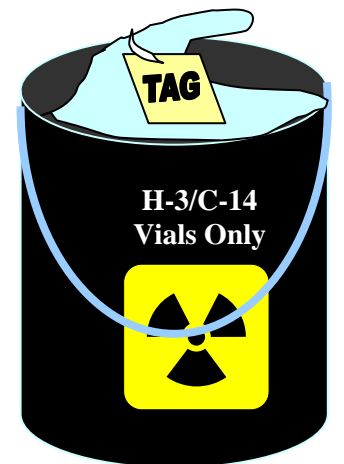
Seal pail liner with tape or wire closure when full. Complete and attach Radioactive Waste Pick Up tag. Contact DOHS for pick up.



Deposit vials with the cocktail inside and the caps ON into the appropriate DOHS-supplied 5 gallon pail. The pail must be lined with a plastic bag.

- Vial waste pails are marked with the radiation symbol and the radioisotope(s) that may be deposited inside.
- H-3 and/or C-14 vials must be placed in pails marked "H-3/C-14".
- Fe-55 and Mn-54 vials must be placed in pails marked "Fe-55/Mn-54"
- Vials containing all other radioisotopes may be combined. Place these vials in the appropriately marked pail.

Seal pail liner with tape or wire closure when full. Complete and attach Radioactive Waste Pick Up tag. Contact DOHS for pick up.



LIQUID SCINTILLATION VIALS

(Vials containing liquid scintillation cocktail of any brand)

No empty vials (Place these in SOLID waste.)

Disposal of radioactive liquids down the sink drain is PROHIBITED.

[Exception: The water used to wash contaminated items at a radiation wash sink may be disposed to the sewer]

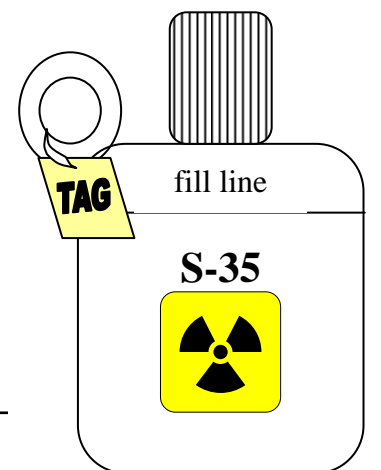
LIQUIDS

Liquids that also present a CHEMICAL or BIOLOGICAL hazard must be disposed as MIXED WASTE (See section below)

Decant liquids into the *appropriate* DOHS-supplied plastic carboy.

- Carboys are marked with the radiation symbol and the radioisotope that may be deposited inside. If the liquid to be disposed is contaminated with more than one radioisotope, consult with DOHS prior to disposal.
- Carboys must be kept tightly capped at all times except when filling.
- To protect waste handlers from splash, do not fill carboy past "fill line".

When full, or when pick up is desired, complete and attach Radioactive Waste Pick Up tag. Contact DOHS for pick up.



MIXED WASTE

These are wastes that are radioactive but also present a secondary hazard (CHEMICAL or BIOLOGICAL).

Consult with DOHS if you are unsure if you generate a mixed waste.

CHEMICAL wastes are those that exhibit the characteristic of corrosivity, reactivity, ignitability, or toxicity or are "listed" by the EPA as hazardous wastes (e.g. acetonitrile, phenol, chloroform, ether, liquids with pH >12.5 or < 2)

BIOHAZARDOUS wastes are those that are infectious, potentially infectious, or present a hazard to human health or the environment

- Minimize the volume of mixed waste that is generated. It is difficult and expensive to dispose of mixed waste. If possible, change the experiment so that mixed wastes are not generated.
- Segregate mixed waste from other radioactive wastes. DO NOT place mixed waste in the standard radioactive waste containers-- inform DOHS that you have generated a mixed waste and a special waste container will be issued to your lab.

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LEAD Pigs and Shields

- Decontaminate if necessary
- Place in strong cardboard box
- Contact DOHS for pick up

To Schedule A Radioactive Waste Pick-Up Contact The Department Of Occupational Health & Safety At 831-8475