

Laboratory Radioactive Waste Disposal Procedures – Liquid Scintillation Waste

Effective June 2015

Materials:

- Five-gallon plastic pails provided by EHS: **red** for liquid scintillation wastes
- 8 ml yellow plastic pail liners provided by EHS
- Yellow ID tags provided by EHS
- Waste Pail Logs for Long-Lived and Liq Scint Waste (electronic form provided by EHS)
- Self-locking cable ties to seal the liners after use, provided by EHS

Setting up the Pail for Lab Use

Remove the lid and open the yellow pail liner within the pail. Pull the top of the liner over the outside edge of can. Open the liner fully by pushing the bottom of the liner all the way down to the bottom of the pail.

Adding Waste to the Pail

Permissible Waste

- Liquid scintillation vials (closed tightly)
- **Liquid scintillation counting fluids must have flashpoints $\geq 140^{\circ}\text{F}$.** Examples of acceptable LSC fluids include Bio-Safe, EconoSafe, Ecoscint, ScintiSafe, Scintiverse, and Ultima Gold. Consult with EHS if you are uncertain about any product.
- Depending on which isotopes you use, EHS may ask you to separate your liquid scintillation waste by isotope.

Prohibited Materials

- Any material except liquid scintillation vials
- Liquid scintillation fluid with flashpoint $< 140^{\circ}\text{F}$

Estimating Amount of Radioactivity

- For liquid scintillation wastes, you must provide a reasonable estimate of the amount of radioactivity in the pail. Keep a Waste Pail Log near the pail. Each time you add waste to the pail, list the date of entry and the estimated activity placed into the pail on the Log.

Preparing the Pail for EHS Waste Collection

1. Pull up the top of the pail liner. Close the neck of the bag and twist it. Use the cable tie to close the bag securely.
2. Place the lid on the pail and twist the lid securely shut.
3. Pail must not be overfilled – you must be able to seal the bag and close the pail.
4. Complete both halves of the ID Tag (except for the Account # which is no longer needed). Note that the Date on the tag is the date on which you deliver the pail to EHS. You must list the names of the liquid scintillation counting fluids.

Transferring Waste Pails to EHS

1. Call or email the EHS Waste Radioactive Contacts to make an appointment to bring your waste:
 - Tom Drexel at 8-6255 and tdrexel@princeton.edu or
 - Kyle Angjelo at 8-2711 or kangjelo@princeton.edu.
2. Bring your waste pails to Room 066, Moffett Lab, at the appointment time.
3. Put your pails on a cart or carry them over. Wear a lab coat and gloves.