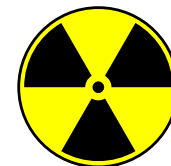


Handling Radioactive Materials

Prolonged exposure to energetic sources and high-level radiation can cause injury or death. It is critical to be proactive when working with radioactive materials (RAM). Plan your experiments to minimize handling time, use shielding, and keep yourself away from the radioactive source. Use of RAM is only allowed in the Nuclear Science Facility or other dedicated lab areas.

Preparing For Use

- Contact the Radiation Safety Officer to initiate a Radioactive Use Authorization (RUA) request.
- All requests will be reviewed by the Health Physics Committee prior to approval.
- Once the RUA is approved: delineate the work area and have absorbent materials available to prevent contamination from spreading if there is a spill.
- Dedicate labware/equipment to radiation work and apply radiation labels to all labware/equipment.



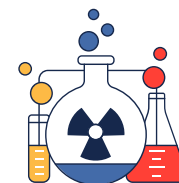
Wearing Personal Protective Equipment (PPE)

- Wear safety glasses, a lab coat, and closed-toe shoes.
- Choose an appropriate disposable glove for the chemical/material. Wear two layers to prevent accidental breaches.



Maintaining Good Work Practices

- Avoid producing mixed waste (chemical and/or biological agents in combination with radioactivity).
- Handle volatile, radiolabeled compounds in a chemical fume hood, not on an open bench top.
- When aliquoting, make sure to label both the original and recipient containers.
- Participate in the dosimetry program if required. Wear a body/ring dosimeter if needed (this will be indicated in the RUA).



Wrapping Up

- Radioactive waste should be disposed of promptly. Contact EH&S to coordinate disposal.
- Secure radioactive stock solutions after use.
- Use a survey meter to check for contamination on yourself and your workspace. Decontaminate as necessary.
- Before leaving the laboratory, remove all PPE and thoroughly clean your hands with water and soap.



In Case of a Spill

- Inform others of the spill and prevent entry into area.
- Clean the spill if resources are available. For large spills, contact UPD at **408-924-2222** and notify EH&S at ehs@sjsu.edu.
- If skin contamination is detected, wash with mild soap and lukewarm water. Do not abrade the skin. Contact RSO and EH&S to report the exposure.



References

- Princeton University EHS: [Handling Radioactive Materials Safely](#)
- NRC: [Regulation of Radioactive Material](#)

Need Help?

- Ask the principal investigator or instructor
- Ask the department/college safety staff
- Ask SJSU Environmental Health & Safety: ehs@sjsu.edu; 408-924-1969