

# FACT SHEET: Handling Radioactive Material Safety Precautions



## NEED TO KNOW:

- Plan my experiments to reduce handling and exposure time.
- Wear appropriate PPE.
- Participate in the bioassay program if required. Wear a body/ring dosimeter if needed.
- Contact OEHS at [oehs@tulane.edu](mailto:oehs@tulane.edu) with any questions or concerns.



## MORE INFO:



Prolonged exposure to energetic sources and high level radiation can lead to injury and death. It is important to always be proactive when working with radioactive materials (RAM). Plan your experiments to reduce handling time, use shielding, and distance yourself from the radioactive source.

### PREPARE WORK AREA:

- Delineate work area with special radiation labeling tape and signs.
- Apply absorbent material (diapers) and trays to prevent spread of contamination.
- Dedicate labware/equipment to radiation work and apply radiation labels to all.

### WEAR PERSONAL PROTECTIVE EQUIPMENT (PPE):

- Wear safety glasses, lab coat, and closed-toe shoes.
- Select appropriate disposable glove for the specific chemical/material. Wear two layers to safeguard against accidental breaching.

### KEEP GOOD WORK PRACTICES:

- Avoid generating mixed waste (i.e., chemical and/or bio agents combined with radioactivity).
- Handle volatile, radio-labelled compounds in a chemical fume hood, NOT an open bench top.
- Ensure that original container and recipient container are labeled when aliquotting.

### WRAPPING UP:

- Dispose of radioactive waste promptly. Refer to the [Radioactive Waste Disposal Fact Sheet](#) for proper disposal procedures.
- Secure radioactive stock solutions after use.
- Survey self and work area for contamination with a survey meter. Decontaminate if necessary.
- Remove PPE and wash hands thoroughly with warm water and soap before leaving the laboratory.

### 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 Tulane Emergency DPS immediately at (504)-865-5911 (Uptown) or (504)-988-5555 (Downtown) and notify OEHS at [oehs@tulane.edu](mailto:oehs@tulane.edu).
- If skin contamination is detected, wash with mild soap and lukewarm water. Do not abrade the skin. Contact Tulane Emergency DPS and OEHS to report the exposure.
- Refer to the [Cleaning Radioactive Contamination Fact Sheet](#) for more information.

## ! WHAT NOT TO DO IN THE LAB:

- **DO NOT** leave the laboratory or touch things outside of the workspace with potentially contaminated gloves.
- **DO NOT** eat, drink, or apply cosmetics in the lab.
- **DO NOT** touch exposed skin while working with RAM.
- **DO NOT** dispose of RAM down the sink.

### ADDITIONAL INFORMATION:

- Princeton University: [Handling Radioactive Materials Safely](#)
- NRC: [Regulation of Radioactive Materials](#)
- PerkinElmer: [Guide to the Safe Handling of Radioactive Materials in Research](#)

