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## Lutetium (Lu-177)

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**Half Life:** 6.7 days

**Radiation:** Beta and a low energy gamma

**Spills:** Spill Response Team, Decontamination, etc. Clean up, disposal, etc. 0.0 GM Containment

**Dosimetry:** Body and ring badges. Urine assays may be required after spills or contamination incidents

**Detection/Measurement:** GM meter with pancake probe. Wipe tests

**General:** 4B/F3 c-4(s)4( or )4(c)4(ont)6(a)-3(m)5(n)3(a)-3(t)4(io)3(n i)4(incide)4(nts)]

### **Special Precautions:**

**Store behind 2.1 mm lead shielding when working with Lutetium 177**

**Use tools to indirectly handle unshielded sources and potentially contaminated containers - no direct hand contact**

**Ensure that an appropriate, operational survey meter is present in the work area and turned on whenever lutetium is handled to immediately detect contamination**

**Shield waste containers as needed to maintain accessible dose rate ALARA**

### **Safe Lab Practices:**

**Disposable gloves, lab coats, and safety glasses are the minimum PPE required when handling radioactive material**

**Remove and discard potentially contaminated PPE prior to leaving the lab area where radioactive material is used**

**Cover all lab bench tops where radioactive material is handled with plastic-backed absorbent paper – change as needed**

**Handle radioactive solutions in trays large enough to contain the material in the event of a spill**

**Never eat, drink, smoke, handle contact lenses, apply cosmetics, or take medicine in the lab - keep food, drinks, and cosmetics out of the lab entirely**

**Never pipette by mouth**

**Never store food and beverages in refrigerators/freezers used for storing radioisotopes – ensure that isotopes are secured at all times**

**Avoid any skin contact with skin-absorbable solvents containing radioactive materials**

**Fume hoods and biological safety cabinets for use with non-airborne radioactive material must work properly and be inspected annually by the EHS department**

**Do not take any radioactive material off site or use in any ways not approved by the Radiation Safety Officer**