



Environmental Health and Safety
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Iodine (I-123)

Half Life: 13.2 hours

Radiation: Electron capture - Gamma

Shielding: 1.5 cm lead for gamma

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

Detection/Measurement: GM with pancake probe. Wipe tests

General Precautions:

Maintain your occupational exposure to radiation As Low As Reasonably Achievable [ALARA]

All persons handling radioactive material must be properly trained by EHS prior to handling and are listed as a rad worker by EHS department

Plan experiments accordingly to minimize external exposure by reducing exposure time, using shielding and increasing your distance from the radiation source

Monitor yourself and the work area during and after each use of radioactive material

Use the smallest amount of radioisotope possible to minimize radiation dose and radioactive waste

Keep an accurate inventory of all radioactive material including records of all receipts, transfers and disposal – contact EHS for any disposal needs including liquid waste

Perform and record lab surveys as needed (monthly and post experiment)

Avoid generating mixed waste (combinations of radioactive, biological and chemical waste)

Special Precautions:

Store behind 1.5 cm lead shielding when working with
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 Iodine 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