Working Safely with $^3$H

Safety Precautions:

- Many tritiated compounds can readily penetrate gloves and skin. Wear two pairs of gloves and change the outer pair periodically to reduce cross contamination.

- Major concern is internal exposure.

- $^3$H can not be monitored during it’s use, with a GM survey meter. Conduct a wipe test of work areas and equipment surfaces and count the wipes in a Liquid Scintillation Counter.

- $^3$H waste does not require special shielding.

- $^3$H and $^{14}$C waste may be combined but must be segregated from short-lived waste.

- A urine sample must be submitted to the RSOF for bioassay if work requires >10 mCi or if intake of $^3$H labeled compound is suspected.

- Tritiated metabolic product may be released and tritiated water can accumulate upon storage. Open stock vials in the fume hood.

Hydrogen 3
Quick Facts

Principal emission: 0.0186 MeV beta

Half Life: 12.32 years

Shielding: None required

Body badge: None required

Ring badge: None required