



$\beta$

Beta Energy: 694 keV average (1710 keV Max)

Range in Air: 20 feet

Range in Lucite: 0.38 inches

Shielding: 3/8" thick plexiglass, acrylic

Critical Organ: bone, lungs, lower GI

Exposure Routes: inhalation, ingestion,  
skin absorption  
Dosimetry:  
required for >5 mCi

Bioassay:<sup>1</sup> Urine

Detection & Measurement

GM Pancake: 17-28% efficiency

Liquid Scintillation Counting—smear test

Micro R Meter: monitor for bremsstrahlung (xrays):

Half Life

Physical: 14.3 days

Biological: bone ~1155 days,  
whole body ~ 257 days

Effective: 14.3 days

$T_{1/2}$

### Special Precautions:

- ⚠ Skin contamination can result in a high localized dose:
  - ⚠ Handle materials remotely (use tongs);
  - ⚠ Shield with plexiglass or lucite;
  - ⚠ Survey work area, clothing and body frequently;
  - ⚠ Report all spills and skin contamination immediately to RSO.
- ⚠  $^{32}\text{P}$  beta can penetrate to a depth of the lens of the eye—always wear eye protection;
- ⚠ Do not shield with lead sheets or foil.

Personal  
Protective  
Equipment



Disposal: Decay in Storage

1. Urine bioassay may be required after any accident/incident where intake is suspected.