RADIONUCLIDE DATA SHEET
Iodine – 125

I – 125 53 protons 72 neutrons

Radiation: **Decay mode:** Electron Capture

Major Betas:

Max E (MeV)	Avg E (MeV)	# per 100 dis
None		

Max. Beta Range in air N/A
Max. Beta Range in water N/A

Major Gammas:

E (MeV)	# per 100 dis
0.0355	7

Avg. gamma E = 0.028 MeV

Half – life: 60.1 days

Gamma constant: 3.06 mR/hr per 1 mCi at 30 cm

Radiological data:

Min. Ingestion ALI: 40 μCi equals 50 rem CEDE (Thyroid)
100 μCi equals 5 rem TEDE (Whole Body)

Min. Inhalation ALI: 40 μCi equals 50 rem CEDE (Thyroid)
200 μCi equals 5 rem TEDE (Whole Body)

Doses:

Skin Dose: Reported for 1 μCi over 10 cm^2 of skin
32.1 mrad/hr (gamma dose)

Point Source: 0 mrad/hr (beta dose)

Disk Source: 0 mrad/hr (beta dose)

Shielding data:

Max. range for beta:	Plastic	=	0 cm
	Aluminum	=	0 cm
Tenth Value Thickness for average gamma:	Concrete	=	0.83 cm
	Lead	=	0.01 cm

Detection Information: Usable Detectors listed with estimated efficiencies
(Use efficiencies listed on instrument when available)

Ludlum 3 with pancake probe at 1 cm:	<1 %	**Liq. Scint. Counter:**	65 %
Ludlum 3 with NaI probe near surface:	5 %	**Gamma Counter:**	70 %

Action Quantities:

Bench top quantity must be less than	400 μCi
Containers require labeling when greater than	1 μCi
Rooms require posting when there is greater than	10 μCi
Contamination lasting more than 24 hrs require NRC notification when greater than	200 μCi

Updated – 08/02/2005