RADIONUCLIDE DATA SHEET
Zinc – 65

Zn – 65 30 protons 35 neutrons

Radiation: **Decay mode:** Electron Capture

Major Positrons:

Max E (MeV)	Avg E (MeV)	# per 100 dis
0.330	0.143	1

Max. Beta Range in air 91 cm or 2.99 ft
Max. Beta Range in water 0.1 cm

Major Gammas:

E (MeV)	# per 100 dis
1.116	51

Avg. gamma E = 1.080 MeV

Half – life: 243.8 days

Gamma constant: 3.67 mR/hr per 1 mCi at 30 cm

Radiological data:

Min. Ingestion ALI: 400 μCi equals 5 rem TEDE (Whole Body)
Min. Inhalation ALI: 300 μCi equals 5 rem TEDE (Whole Body)

Doses:

Skin Dose: Reported for 1 μCi over 10 cm^2 of skin
27.8 mrad/hr (gamma dose)
Point Source: 9.20 mrad/hr (beta dose)
Disk Source: 9.30 mrad/hr (beta dose)

Shielding data:

Max. range for beta:	Plastic	=	0.1 cm
	Aluminum	=	0.05 cm
Tenth Value Thickness for average gamma:	Concrete	=	16 cm
	Lead	=	3 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:**	Not known
Ludlum 3 with NaI probe near surface:	200 %	**Gamma Counter:**	7 %

Action Quantities:

Bench top quantity must be less than	3000 μCi
Containers require labeling when greater than	10 μCi
Rooms require posting when there is greater than	100 μCi
Contamination lasting more than 24 hrs require NRC notification when greater than	1500 μCi

Updated – 08/02/2005