RADIONUCLIDE DATA SHEET
Cobalt

Co-57 27 protons 30 neutrons

Radiation: **Decay mode:** Electron Capture

Major Gammas:

E (MeV)	# per 100 dis
0.014	9.16
0.122	85.6
0.136	10.68

Max. Beta Range in air N/A cm or N/A ft
Max. Beta Range in water N/A cm

Avg. gamma E = 0.114 MeV

Half – life: 271.79 days

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

Radiological data: **Min. Ingestion ALI:** 4000μCi equals 5rem TEDE (Whole Body)

Min. Inhalation ALI: 700 μCi equals 5rem TEDE (Whole Body)

Doses:

Skin Dose: Reported for 1 μCi over 10 cm^2 of skin
48.3 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	=	N/A cm
	Aluminum	=	N/A cm
Tenth Value Thickness for average gamma:	Concrete	=	cm
	Lead	=	cm

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

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

Action Quantities:

Bench top quantity must be less than	7000 μCi
Containers require labeling when greater than	100 μCi
Rooms require posting when there is greater than	1000 μCi
Contamination lasting more than 24 hrs require NRC notification when greater than	3500 μCi