RADIONUCLIDE DATA SHEET
Radium

Ra-226 88 protons 138 neutrons

Radiation: **Decay mode:** Alpha

Major Alpha:

E (MeV)	# per 100 dis
4.784	94.45
4.601	10.4
4.340	0.0065

Major Gammas:

E (MeV)	# per 100 dis
0.0186	3.59
0.262	0.005
0.601	0.00049

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

Avg. gamma E = 0.19 MeV

Half – life: 1600 years

Gamma constant: 9.17 mR/hr per mCi at 30 cm

Radiological data:
Min. Ingestion ALI: 5μCi equals 5rem TEDE (Whole Body)
2μCi equals 50rem CEDE (Bone surf)
Min. Inhalation ALI: 0.6μCi equals rem TEDE (Whole Body)

Doses:
Skin Dose: Reported for 1 μCi over 10 cm^2 of skin
0.217 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	6 μCi
Containers require labeling when greater than	0.1 μCi
Rooms require posting when there is greater than	1 μCi
Contamination lasting more than 24 hrs require NRC notification when greater than	3 μCi