

# RADIONUCLIDE DATA SHEET

[KRYPTON]

Kr-85

36 protons

49 neutrons

**Half Life:** 10.76 Years

**Radiation:** Decay Mode: Electron Capture

**Gamma Constant:** 0.04 mR/hr per 1 mCi at 1.0 meter

### Major Betas:

Max E(MeV)	Avg E (MeV)	# per 100 dis
0.687	0.251	99.56
0.406	0.124	4.74 E -7
0.173	0.048	0.434

Max. Beta Range in Air : 195.53 cm

Max. Beta Range in Water : 0.25 cm

### Major Gammas:

E(MeV)	# per 100 Dis
0.514	0.434
0.363	2.17 E -6
0.151	2.17 E -6

Average gamma E = 0.514 MeV

### Intake Data (annual):

Minimum Ingestion: None

Minimum Inhalation: None

### Doses:

**Skin Dose:** Reported for 1  $\mu$ Ci over 10 cm<sup>2</sup> of skin  
0.041 mrad/hr (gamma dose)

Point Source: 571 mrad/hr (beta dose)

Disk Source: 571 mrad/hr (beta dose)

### Shielding Information:

Maximum Range For Beta	Plastic	0.25 cm
	Aluminum	0.21 cm
Tenth Value Thickness For Average Gamma:	Concrete	0 cm
	Lead	0 cm

**Detection information:** Usable Detectors listed with estimate efficiencies

Ludlum 3 w/ pancake probe at 1 cm	%	Liq. Scint. Counter	%
Ludlum 3 w/ NaI probe near surface	%	Gamma Counter	%

### Action Quantities:

Bench Top Quantity Must Be Less Than	N/A $\mu$ Ci
Containers Require Labeling When Greater Than	1000 $\mu$ Ci
Rooms Require Posting When There Is Greater Than	10000 $\mu$ Ci
Contamination Lasting More than 24 hrs Require NRC Notification At	N/A $\mu$ Ci