



RADIONUCLIDE DATA SHEET

Krypton



Kr-85 36 protons 49 neutrons

Radiation: **Decay mode:** Electron
 Capture

Major Betas:

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

Major Gammas:

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

Max. Beta Range in air 195.53 or 6.42 ft
 cm
Max. Beta Range in water 0.25 cm

Avg. gamma E = 0.514 MeV

Half – life: 2.8047 days
Gamma constant: 0.044 mR/hr per mCi at 30 cm

Radiological data: **Min. Ingestion ALI:** No limit
 Min. Inhalation ALI: No Limit

Doses:
Skin Dose: Reported for 1 μCi over 10 cm² of skin
 0.041 mrad/hr (gamma dose)
Point Source: 571 mrad/hr (beta dose)
Disk Source: 571 mrad/hr (beta dose)

Shielding data: **Max. range for beta:** Plastic = 0.25 cm
 Aluminum = 0.21 cm
Tenth Value Thickness for Concrete = cm
average gamma: 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 N/A μCi
Containers require labeling when greater than 1000 μCi
Rooms require posting when there is greater than 10000 μCi
Contamination lasting more than 24 hrs require NRC notification when greater than N/A μCi