

# RADIONUCLIDE DATA SHEET

[**IODINE**]

I-123

53 protons

70 neutrons

**Half Life:** 13.27 hours

**Radiation:** Decay Mode: Electron Capture

**Gamma Constant:** 0.792 mR/hr per 1 mCi at 30 cm

## **Major Gammas:**

E(MeV)	# per 100 Dis
0.159	83.3
0.440	0.43
0.529	1.39

Max. Beta Range in Air : N/A cm

Max. Beta Range in Water : N/A cm

Average gamma E = 0.166 MeV

## **Intake Data (annual):**

Minimum Ingestion: 10000  $\mu$ Ci equals 5 rem TEDE (WHOLE BODY)

3000  $\mu$ Ci equals 50 rem CEDE (Thyroid)

Minimum Inhalation: 20000  $\mu$ Ci equals 5 rem TEDE (WHOLE BODY)

6000  $\mu$ Ci equals 50 rem CEDE (Thyroid)

## **Doses:**

**Skin Dose:** Reported for 1  $\mu$ Ci over 10 cm<sup>2</sup> of skin

21.2 mrad/hr (gamma dose)

Point Source: 0 mrad/hr (beta dose)

Disk Source: 0 mrad/hr (beta dose)

## **Shielding Information:**

Maximum Range For Beta	Plastic	N/A cm
	Aluminum	N/A 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	60000 $\mu$ Ci
Containers Require Labeling When Greater Than	100 $\mu$ Ci
Rooms Require Posting When There Is Greater Than	1000 $\mu$ Ci
Contamination Lasting More than 24 hrs Require NRC Notification At	30000 $\mu$ Ci