# RADIONUCLIDE DATA SHEET [INDIUM]

In-111 — 49 protons — 62 neutrons

***Half Life:*** 2.8047 days
***Radiation:*** Decay Mode: Electron Capture
***Gamma Constant:*** 1.38 mR/hr per 1 mCi at 30 cm

***Major Gammas:***

| E(MeV) | # per 100 Dis |
|---|---|
| 0.245 | 94 |
| 0.171 | 90.84 |
| 0.150 | 0.003 |

Max. Beta Range in Air : N/A cm
Max. Beta Range in Water : N/A cm

Average gamma E = 0.209 MeV

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

Minimum Ingestion: 4000 µCi equals 5 rem TEDE (WHOLE BODY)
Minimum Inhalation: 6000 µCi equals 5 rem TEDE (WHOLE BODY)

***Doses:***

**Skin Dose:** Reported for 1 µCi over 10 cm² of skin
28.7 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 | 40000 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 At | 20000 µCi |