

RADIONUCLIDE DATA SHEET

[GALLIUM]

Ga-67

31 protons

36 neutrons

Half Life: 3.26 days

Radiation: Decay Mode: Electron Capture

Gamma Constant: 1.23 mR/hr per 1 mCi at 30 cm

Major Gammas:

| E(MeV) | # per 100 Dis |
|--------|---------------|
| 0.093 | 36 |
| 0.185 | 20 |
| 0.300 | 16 |

Max. Beta Range in Air : N/A cm

Max. Beta Range in Water : N/A cm

Average gamma E = 0.178 MeV

Intake Data (annual):

Minimum Ingestion: 7000 μ Ci equals 5 rem TEDE (WHOLE BODY)

Minimum Inhalation: 10000 μ Ci equals 5 rem TEDE (WHOLE BODY)

Doses:

Skin Dose: Reported for 1 μ Ci over 10 cm² of skin
40.5 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 | 0 cm |
| | Aluminum | 0 cm |
| Tenth Value Thickness For Average Gamma: | Concrete | 7.4 cm |
| | Lead | 0.14 cm |

Detection information: Usable Detectors listed with estimate efficiencies

| | | | |
|------------------------------------|-----|---------------------|-----|
| Ludlum 3 w/ pancake probe at 1 cm | <1% | Liq. Scint. Counter | 65% |
| Ludlum 3 w/ NaI probe near surface | 3% | Gamma Counter | 70% |

Action Quantities:

| | |
|--|----------------|
| Bench Top Quantity Must Be Less Than | 70000 μ Ci |
| Containers Require Labeling When Greater Than | 1000 μ Ci |
| Rooms Require Posting When There Is Greater Than | 10000 μ Ci |
| Contamination Lasting More than 24 hrs Require NRC Notification At | 35000 μ Ci |