**RADIONUCLIDE DATA SHEET**  [POTASSIUM]

**Half Life:** 12.36 hours  
**Radiation:** Decay Mode: Beta  
**Gamma Constant:** 1.59 mR/hr per 1 mCi at 30 cm

<table>
<thead>
<tr>
<th>Major Betas</th>
<th>Major Gammas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max E(MeV)</td>
<td>Avg E (MeV)</td>
</tr>
<tr>
<td>1.684</td>
<td>0.701</td>
</tr>
<tr>
<td>1.996</td>
<td>0.822</td>
</tr>
<tr>
<td>3.521</td>
<td>1.564</td>
</tr>
</tbody>
</table>

Max. Beta Range in Air : 1505 cm  
Max. Beta Range in Water : 1.8 cm  
Average gamma E = 1.500 MeV

**Intake Data (annual):**  
Minimum Ingestion: 5000 µCi equals 5 rem TEDE (WHOLE BODY)  
Minimum Inhalation: 5000 µCi equals 5 rem TEDE (WHOLE BODY)

**Doses:**  
**Skin Dose:** Reported for 1 µCi over 10 cm² of skin  
4.35 mrad/hr (gamma dose)  
**Point Source:** 738 mrad/hr (beta dose)  
**Disk Source:** 736 mrad/hr (beta dose)

**Shielding Information:**  
| Maximum Range For Beta | Plastic | 1.8 cm |  
| Aluminum | 0.82 cm |  
| Tenth Value Thickness For Average Gamma: | Concrete | 19 cm |  
| Lead | 3.9 cm |

**Detection information:** Usable Detectors listed with estimate efficiencies  
Ludlum 3 w/ pancake probe at 1 cm 16% Liq. Scint. Counter 85%  
Ludlum 3 w/ NaI probe near surface 1% Gamma Counter 7%

**Action Quantities:**  
Bench Top Quantity Must Be Less Than 50000 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 At 25000 µCi