

Radioactive Sources



PA2667-005 Alpha



PA2667-010 Beta



PA2667-020 Gamma

Description:

The school grade radioactive sources are mounted in a 25mm diam. x 5mm thick plastic disc with the symbol printed. Although radioactivity level is very low, the sources should not be carried around for long periods or placed in pockets of clothing against one's body.

Useful Conversion Information:

1 Bq (Becquerel) = 1 disintegration per second = 27×10^{-12} Curie (Ci)

1 kBq = 27×10^{-9} nCi (nano Curie)

1 kBq = 27×10^{-6} uCi (micro Curie)

1 Ci = 37×10^9 Bq = 37 GBq (giga Becquerel)

Half-life is the time taken for the radioactivity of a specified isotope to fall to half its original value.

Caution To Be Followed:

These school grade radioactive sources have a very low level of activity and do not require licensing, however they should be handled with care. The following rules should be followed:

- Unnecessary handling of sources should be avoided. Do not place into pockets of clothing or carry bags etc.
- As general practice, radioactive sources should always be handled with tongs or forceps to keep them at least 30cm away from user.
- Handle the alpha source with special care to avoid damage to the fragile metallic coating over the material.
- For Alpha sources, a thin aluminium sheet provides sufficient absorption
- For Beta sources, about 4 to 6mm thick lead is required for full absorption.
- For Gamma sources, 25mm thick lead is required to absorb 80% of the radiation.

Catalogue No:	Material:	Particle:	Half-Life:	Strength:
PA2667-005	Polonium 210	Alpha	138.38 days	0.1 µCi or 3.7 kBq (+/- 1)
PA2667-010	Strontium 90	Beta	26.79 years	0.1 µCi or 3.7 kBq (+/- 1)
PA2667-020	Cobalt 60	Gamma	5.27 years	1.0 µCi or 37 kBq (+/- 10)