

How Long Should I Use My Source?

A radioactive sealed source's recommended working life (RWL) is the manufacturer's recommended time period within which the source design specification and integrity is guaranteed under normal conditions of use; safety being paramount. The maximum RWL for non-welded sources of any configuration is two or five years depending on source configuration. Alternatively, the RWL will be approximately two half-lives if less than the two- or five-year options. For welded capsules, the RWL is 15 years or less based primarily on half life.

Although EZIP sealed sources have been used beyond the RWL values listed below, doing so is not recommended. Disposal is recommended. The final decision when to recalibrate/replace a source rests with the source owner. If a source shows visible damage (e.g., scratches or cracks), it should be leak/contamination tested and recalibrated or replaced as appropriate. The regulatory limit for leak test results is <5 nCi (185 Bq) for both alpha and beta-gamma activity. EZIP makes no expressed or implied warranties, or guarantees how long a source can be safely used because adverse source environmental conditions, improper use, or material incompatibility can affect a source's appearance and/or integrity. It is the source owner's responsibility to conduct scheduled source evaluations and leak tests using appropriate materials and methods.

NOTE: It is highly recommended to follow instrument manufacturers' recommended replacement schedules, especially those replacement schedules less than the RWL, to maintain optimal instrument performance.

Product Family	Nuclide	Half Life	Typical RWL
Attenuation Correction Line and Point Sources (nominal)	Na-22	2.6 y	5 years
	Co-57	271.79 d	2 years
	Ge-68	270.8 d	2 years
	Ba-133	10.57 y	5 years
	Cs-137	30.17 y	15 years
	Gd-153	242 d	2 years
Brachytherapy (calibrated)	Cs-137	30.17 y	15 years
Dose Calibrator Vials (calibrated)	Co-57	271.79 d	2 years
	Co-60	5.272 y	5 years
	Ba-133	10.57 y	5 years
	Cs-137	30.17 y	5 years
Flood Sources (nominal)	Co-57	271.79 d	2 years
Markers and Rulers (nominal)	Na-22	2.6 y	5 years
	Co-57	271.79 d	2 years
	Gd-153	242 d	2 years
Medical Check Standard Sources (nominal and calibrated)	Na-22	2.6 y	5 years
	Mn-54	312.3 d	2 years
	Co-57	271.79 d	2 years
	Co-60	5.272 y	5 years
	Ge-68	270.8 d	2 years
	Cd-109	1.27 y	2 years
	Ba-133	10.57 y	5 years
	Cs-137	30.17 y	5 years
	Eu-152	13.5 y	5 years
Quality Assurance Sources (nominal)	Na-22	2.6 y	5 years
	Co-57	271.79 d	2 years
	Ge-68	270.8 d	2 years
	Gd-153	242 d	2 years