

**Calcium-45**

Interfering radionuclides are removed from calcium by a series of co-precipitation, ion exchange and extraction chromatography stages. The chemical recovery is found by determining calcium, by atomic absorption spectroscopy, before and after separation. Calcium-45 is determined by liquid scintillation spectrometry using a Quantulus 1220 operated in pulse-shape analysis mode, in a previously determined energy window. The counting efficiency is found by internal standard addition. Because of the difficulty in removing all last traces of potential interferences, calcium-45 results are given as upper bounds, at approximately 95% confidence, even when a statistically significant net count rate is observed.