

RADIATION SAFETY DATA - ³²SI

Silicon-32 is easily detected and measured. The major external hazard comes from the ³²Si daughter, ³²P.

Physical Data

Decay mode	beta emission to ³² P (radioactive)
Physical half-life	160 years
Major emissions	beta minus, 0.221 MeV max

Biological Data

Other doses	2.2 mrem/ μ Ci ingested (for oxides) 52 mrem/ μ Ci inhaled
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Annual Limit on Intake	Ingestion – Inhalation –
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Common Hazards - Precautions

Since ³²Si decays to ³²P with secular equilibrium being reached in approximately 14 weeks, the handling of ³²Si must be done in consideration of the higher energy beta (1.7 MeV max) from ³²P.

Also, contributions from the ³²P daughter must be considered in dose calculations for ³²Si. External dosimeters will only be required for handling stock solutions (e.g. >10 μ Ci).