²¹⁰Pb

STAR
STRATEGY FOR ALLIED RADIOECOLOGY

Commonly used or illustrative parameters

Generic parameters	Value
Radioactive half life [1]	22.3 Years
Origin [1]	Decay product of ^{238}U
Principal decay mode [1]	Beta
Specific activity [2]	2.8×10^{12} Bq g^{-1}
Freshwater Kd	No data available
Marine Kd [3]	1.0×10^{7} L kg^{-1}

Parameters useful for human assessments	Value
CR Pasture grass [4]	9.2×10^{-2}
CR Freshwater fish [4]	3.7×10^{2} L kg^{-1}
CR Marine fish [3]	2.0×10^{3} L kg^{-1}
F_f Cow meat [4]	7.0×10^{-4} d kg^{-1}
F_m Cow milk [4]	1.9×10^{-4} d kg^{-1}
Human fractional absorption (f1) [5]	0.2
Inhalation dose coefficient [6]	5.6×10^{-6} Sv Bq^{-1}
Ingestion dose coefficient [6]	6.9×10^{-7} Sv Bq^{-1}
Biological half life for Human (adult) [7]	a: 12 days (0.8), b: 180 days (0.18) c: 10000 days (0.02)
Biological half life for Cow milk	No data available
EU Food intervention limit- Dairy [8]	1000 Bq L^{-1} or Bq kg^{-1}
EU Food intervention limit- Baby food [8]	400 Bq L^{-1} or Bq kg^{-1}
EU Food intervention limit- Liquid [8]	1000 Bq L^{-1} or Bq kg^{-1}
EU Food intervention limit- Other food [8]	1250 Bq L^{-1} or Bq kg^{-1}
EU Food intervention limit- Minor food [8]	12500 Bq L^{-1} or Bq kg^{-1}

<u>²¹⁰Pb Nuclear data</u>

^{210}Pb

Commonly used or illustrative parameters

Parameters useful for wildlife assessments	Value
Terrestrial EMCL — Soil [9]	7.14×10^3 Bq kg^{-1}
Freshwater EMCL —Water [9]	1.12×10^0 Bq L^{-1}
Freshwater EMCL — Sediment [9]	5.00×10^3 Bq kg^{-1}
Marine EMCL — Water [9]	2.65×10^{-1} Bq L^{-1}
Marine EMCL — Sediment [9]	1.08×10^4 Bq kg^{-1}
CR Terrestrial mammal (rat) [9]	3.7×10^{-2}
CR Freshwater fish [9]	1.3×10^3
CR Freshwater mollusc [9]	5.8×10^3
CR Marine fish [9]	3.3×10^4
CR Marine mollusc [9]	6.3×10^3
Internal DCC Terrestrial mammal (rat) on soil [9]	2.5×10^{-4} µGy h^{-1}/Bq kg^{-1} whole organism
External DCC Terrestrial mammal (rat) in soil [9]	5.2×10^{-7} µGy h^{-1}/Bq kg^{-1} soil
External DCC Terrestrial mammal (rat) on soil [9]	2.8×10^{-7} µGy h^{-1}/Bq kg^{-1} soil
Internal DCC Marine fish (benthic) [9]	2.5×10^{-4} µGy h^{-1}/Bq kg^{-1} whole organism
External DCC Marine fish (benthic) in water [9]	6.1×10^{-6} µGy h^{-1}/Bq L^{-1} water
External DCC Marine fish (benthic) at sediment interface [9]	3.1×10^{-6} µGy h^{-1}/Bq kg^{-1} sediment
Internal DCC Freshwater fish (pelagic) [9]	2.6×10^{-4} µGy h^{-1}/Bq kg^{-1} whole organism
External DCC Freshwater fish in water [9]	4.0×10^{-6} µGy h^{-1}/Bq L^{-1} water

All terms used in these tables are described and discussed in underlying documents accessed via the hyperlinks provided