^{240}Pu

STAR
STRATEGY FOR ALLIED RADIOECOLOGY

Commonly used or illustrative parameters

Generic parameters	Value
Radioactive half life [1]	6561 Years
Origin [1]	Man made
Principal decay mode [1]	Alpha decay
Specific activity [2]	8.4×10^9 Bq/g
Freshwater Kd [3]	2.4×10^5 L kg^{-1}
Marine Kd [4]	1×10^5 L kg^{-1}

Parameters useful for human assessments	Value
CR Pasture grass [3]	5.5×10^{-4}
CR Freshwater fish (muscle) [3]	2.1×10^4 L kg^{-1}
CR Marine fish [4]	1×10^2 L kg^{-1}
F_f Cow meat [3]	1.1×10^{-6} d kg^{-1}
F_m Cow milk [3]	1.0×10^{-5} d L^{-1}
Human fractional absorption (f1) [5]	0.0005
Inhalation dose coefficient [6]	1.6×10^{-5} Sv Bq^{-1}
Ingestion dose coefficient [6]	2.3×10^{-7} Sv Bq^{-1}
Biological half life for Human (adult) [7]	a: 40 yrs (0.45) Liver b: 100 yrs (0.45) skeleton
Biological half life for Cow milk	No data available
EU Food intervention limit- Dairy [8]	20 Bq L^{-1} or Bq kg^{-1}
EU Food intervention limit- Baby food [8]	1 Bq L^{-1} or Bq kg^{-1}
EU Food intervention limit- Liquid [8]	20 Bq L^{-1} or Bq kg^{-1}
EU Food intervention limit- Other food [8]	80 Bq L^{-1} or Bq kg^{-1}
EU Food intervention limit- Minor food [8]	800 Bq L^{-1} or Bq kg^{-1}

^{240}Pu Nuclear data

www.radioecology-exchange.org

^{240}Pu

Commonly used or illustrative parameters

Parameters useful for wildlife assessments	Value
Terrestrial EMCL— Soil [9]	7.94×10^2 Bq kg^{-1}
Freshwater EMCL—Water [9]	1.69×10^{-2} Bq L^{-1}
Freshwater EMCL— Sediment [9]	6.58×10^2 Bq kg^{-1}
Marine EMCL — Water [9]	8.93×10^{-4} Bq L^{-1}
Marine EMCL — Sediment [9]	2.61×10^1 Bq kg^{-1}
CR Terrestrial mammal (rat) [9]	1.40×10^{-2}
CR Freshwater fish [9]	8.30×10^2
CR Freshwater mollusc [9]	5.50×10^3
CR Marine fish [9]	1.40×10^3
CR Marine mollusc [9]	1.10×10^3
Internal DCC Terrestrial mammal (rat) on soil [9]	3.00×10^{-2} µGy h^{-1}/Bq kg^{-1} whole organism
External DCC Terrestrial mammal (rat) in soil [9]	1.30×10^{-7} µGy h^{-1}/Bq kg^{-1} soil
External DCC Terrestrial mammal (rat) on soil [9]	5.90×10^{-8} µGy h^{-1}/Bq kg^{-1} soil
Internal DCC Marine fish (benthic) [9]	3.00×10^{-2} µGy h^{-1}/Bq kg^{-1} whole organism
External DCC Marine fish (benthic) in water[9]	1.90×10^{-7} µGy h^{-1}/Bq L^{-1} water
External DCC Marine fish (benthic) at sediment interface [9]	9.50×10^{-8} µGy h^{-1}/Bq kg^{-1} sediment
Internal DCC Freshwater fish (pelagic) [9]	3.00×10^{-2} µGy h^{-1}/Bq kg^{-1} whole organism
External DCC Freshwater fish in water [9]	1.40×10^{-7} 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