

^{237}Np

Commonly used or illustrative parameters

Generic parameters	Value
Radioactive half life [1]	2.14×10^6 Years
Origin [1]	Neutron capture by ^{235}U and ^{238}U Decay of ^{237}U and ^{241}Am
Principal decay mode [1]	Alpha
Specific activity [2]	2.60×10^7 Bq/g
Freshwater Kd [3]	1×10^1 L kg ⁻¹
Marine Kd [4]	1×10^3 L kg ⁻¹

Parameters useful for human assessments	Value
CR Pasture grass [3]	6.1×10^{-2}
CR Freshwater fish	No data available
CR Marine fish [4]	1×10^0 L kg ⁻¹
F _f Cow meat	No data available
F _m Cow milk	No data available
Human fractional absorption (f ₁) [5]	0.0005
Inhalation dose coefficient [6]	1.2×10^{-5} Sv Bq ⁻¹
Ingestion dose coefficient [6]	1.1×10^{-7} Sv Bq ⁻¹
Biological half life for Human (adult) [7]	Liver: 40 y (0.45), bone: 100 y (0.45) gonads (retained)
Biological half life for Cow milk [8]	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

Commonly used or illustrative parameters

Parameters useful for wildlife assessments	Value
Terrestrial EMCL — Soil [9]	$9.71 \times 10^1 \text{ Bq kg}^{-1}$
Freshwater EMCL — Water [9]	$1.16 \times 10^{-2} \text{ Bq L}^{-1}$
Freshwater EMCL — Sediment [9]	$7.94 \times 10^{-4} \text{ Bq kg}^{-1}$
Marine EMCL — Water [9]	$6.8 \times 10^{-2} \text{ Bq L}^{-1}$
Marine EMCL — Sediment [9]	$2.74 \times 10^1 \text{ Bq kg}^{-1}$
CR Terrestrial mammal (rat) [9]	5.4×10^{-1}
CR Freshwater fish [9]	8.3×10^2
CR Freshwater mollusc [9]	1×10^4
CR Marine fish [9]	1.4×10^3
CR Marine mollusc [9]	3.8×10^2
Internal DCC Terrestrial mammal (rat) on soil [9]	$2.75 \times 10^{-2} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ whole organism
External DCC Terrestrial mammal (rat) in soil [9]	$7.0 \times 10^{-6} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ soil
External DCC Terrestrial mammal (rat) on soil [9]	$3.5 \times 10^{-6} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ soil
Internal DCC Marine fish (benthic) [9]	$2.75 \times 10^{-2} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ whole organism
External DCC Marine fish (benthic) in water [9]	$1.3 \times 10^{-5} \mu\text{Gy h}^{-1}/\text{Bq L}^{-1}$ water
External DCC Marine fish (benthic) at sediment interface [9]	$\mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ sediment
Internal DCC Freshwater fish (pelagic) [9]	$2.75 \times 10^{-2} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ whole organism
External DCC Freshwater fish in water [9]	$1.2 \times 10^{-5} \mu\text{Gy h}^{-1}/\text{Bq L}^{-1}$ water

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

Sources of data [reference list](#)
 Data compiled: December 2013
 Data updated : April 2015

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