

^{230}Th



Commonly used or illustrative parameters

Generic parameters	Value
Radioactive half life [1]	7.54×10^4 Years
Origin [2]	Natural
Principal decay mode [1]	alpha
Specific activity [2]	7.62×10^8 Bq/g
Freshwater Kd [3]	1.9×10^5 L kg ⁻¹
Marine Kd [4]	5.0×10^6 L kg ⁻¹

Parameters useful for human assessments	Value
CR Pasture grass [3]	9.9×10^{-2}
CR Freshwater fish [3]	1.9×10^2 L kg ⁻¹
CR Marine fish [4]	6×10^2 L kg ⁻¹
F _f Cow meat [3]	2.3×10^4 d kg ⁻¹
F _m Cow milk	No data available
Human fractional absorption (f ₁) [5]	0.0005
Inhalation dose coefficient [6]	1.4×10^{-5} Sv Bq ⁻¹
Ingestion dose coefficient [6]	2.1×10^{-7} Sv Bq ⁻¹
Biological half life for Human (adult) [7]	a: 8000 days (0.7) bone b: 700 days (0.04) liver c: 700 days (0.16) other organs or tissues
Biological half life for Cow milk	No data available
EU Food intervention limit- Dairy [8]	400 Bq L ⁻¹ or Bq kg ⁻¹
EU Food intervention limit- Baby food [8]	1000 Bq L ⁻¹ or Bq kg ⁻¹
EU Food intervention limit- Liquid [8]	1000 Bq L ⁻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

^{230}Th Nuclear data

www.radioecology-exchange.org

Commonly used or illustrative parameters

Parameters useful for wildlife assessments	Value
Terrestrial EMCL — Soil [9]	$2.7 \times 10^2 \text{ Bq kg}^{-1}$
Freshwater EMCL — Water [9]	$9.5 \times 10^{-4} \text{ Bq L}^{-1}$
Freshwater EMCL — Sediment [9]	$1.0 \times 10^1 \text{ Bq kg}^{-1}$
Marine EMCL — Water [9]	$1.8 \times 10^{-4} \text{ Bq L}^{-1}$
Marine EMCL — Sediment [9]	$1.5 \times 10^2 \text{ Bq kg}^{-1}$
CR Terrestrial mammal (rat) [9]	1.4×10^{-4}
CR Freshwater fish [9]	7.1×10^2
CR Freshwater mollusc [9]	1.0×10^4
CR Marine fish [9]	1.3×10^3
CR Marine mollusc [9]	1.7×10^3
Internal DCC Terrestrial mammal (rat) on soil [9]	$2.7 \times 10^{-2} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ whole organism
External DCC Terrestrial mammal (rat) in soil [9]	$1.8 \times 10^{-7} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ soil
External DCC Terrestrial mammal (rat) on soil [9]	$6.9 \times 10^{-8} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ soil
Internal DCC Marine fish (benthic) [9]	$2.7 \times 10^{-2} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ whole organism
External DCC Marine fish (benthic) in water [9]	$2.8 \times 10^{-7} \mu\text{Gy h}^{-1}/\text{Bq L}^{-1}$ water
External DCC Marine fish (benthic) at sediment interface [9]	$1.4 \times 10^{-7} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ sediment
Internal DCC Freshwater fish (pelagic) [9]	$2.7 \times 10^{-2} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ whole organism
External DCC Freshwater fish in water [9]	$2.5 \times 10^{-7} \mu\text{Gy h}^{-1}/\text{Bq L}^{-1}$ 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: July 2014
Data updated : May 2015