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Commonly used or illustrative parameters

Generic parameters	Value
Radioactive half life [1]	4.5×10^9 Years
Origin [1]	Natural
Principal decay mode [1]	Alpha
Specific activity [2]	12.4×10^3 Bq/g
Freshwater Kd [3]	5.0×10^1 L kg ⁻¹
Marine Kd [4]	5.0×10^2 L kg ⁻¹

Parameters useful for human assessments	Value
CR Pasture grass [3]	4.6×10^{-2}
CR Freshwater fish [3]	2.4×10^0 L kg ⁻¹
CR Marine fish [4]	1.0×10^0 L kg ⁻¹
F _f Cow meat [3]	3.9×10^{-4} d kg ⁻¹
F _m Cow milk [3]	1.8×10^{-3} d kg ⁻¹
Human fractional absorption (f ₁) [5]	0.02
Inhalation dose coefficient [6]	8.0×10^{-6} Sv Bq ⁻¹
Ingestion dose coefficient [6]	4.5×10^{-8} Sv Bq ⁻¹
Biological half life for Human (adult) [7]	a: 20 days (0.2) , b: 5000 days (0.23) bones: a: 6 days (0.12) , b: 1500 days (0.00052) kidneys: 6 days (0.12) , b: 1500 days (0.00052) other tissues
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]	$1.1 \times 10^2 \text{ Bq kg}^{-1}$
Freshwater EMCL—Water [9]	$2.5 \times 10^{-1} \text{ Bq L}^{-1}$
Freshwater EMCL— Sediment [9]	$1.2 \times 10^1 \text{ Bq kg}^{-1}$
Marine EMCL — Water [9]	$2.0 \times 10^{-1} \text{ Bq L}^{-1}$
Marine EMCL — Sediment [9]	$3.3 \times 10^1 \text{ Bq kg}^{-1}$
CR Terrestrial mammal (rat) [9]	5.5×10^{-3}
CR Freshwater fish [9]	7.2×10^1
CR Freshwater mollusc [9]	5.6×10^2
CR Marine fish [9]	8.8×10^0
CR Marine mollusc [9]	3.2×10^1
Internal DCC Terrestrial mammal (rat) on soil [9]	$2.8 \times 10^{-2} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ whole organism
External DCC Terrestrial mammal (rat) in soil [9]	$1.5 \times 10^{-7} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ soil
External DCC Terrestrial mammal (rat) on soil [9]	6.7×10^{-8} $\mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ soil
Internal DCC Marine fish (benthic) [9]	$2.8 \times 10^{-2} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ whole organism
External DCC Marine fish (benthic) in water [9]	2.0×10^{-7} $\mu\text{Gy h}^{-1}/\text{Bq L}^{-1}$ water
External DCC Marine fish (benthic) at sediment interface [9]	$1.0 \times 10^{-7} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ sediment
Internal DCC Freshwater fish (pelagic) [9]	$2.6 \times 10^{-2} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ whole organism
External DCC Freshwater fish in water [9]	$1.6 \times 10^{-7} \mu\text{Gy h}^{-1}/\text{Bq L}^{-1}$ 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

www.radioecology-exchange.org