

$^{210}\text{Po}$



### Commonly used or illustrative parameters

Generic parameters	Value
Radioactive half life [1]	138 days
Origin [1]	Natural or Activation of Bi
Principal decay mode [1]	Alpha
Specific activity [2]	$1.7 \times 10^{14} \text{ Bq g}^{-1}$
Freshwater Kd	No data available
Marine Kd [3]	$2.0 \times 10^7 \text{ L kg}^{-1}$

Parameters useful for human assessments	Value
CR Pasture grass [4]	$1.2 \times 10^{-1}$
CR Freshwater fish [4]	$3.6 \times 10^1 \text{ L kg}^{-1}$
CR Marine fish [3]	$2. \times 10^3 \text{ L kg}^{-1}$
F <sub>f</sub> Cow meat [4]	$2. \times 10^2 \text{ d kg}^{-1}$
F <sub>m</sub> Cow milk [4]	$2.1 \times 10^{-4} \text{ d kg}^{-1}$
Human fractional absorption (f <sub>1</sub> ) [5]	0.5
Inhalation dose coefficient [6]	$4.3 \times 10^{-6} \text{ Sv Bq}^{-1}$
Ingestion dose coefficient [6]	$1.2 \times 10^{-6} \text{ Sv Bq}^{-1}$
Biological half life for Human (adult) [7]	a: 50 days (1.0)
Biological half life for Cow milk [8]	a: 3.7 days , b: 33 days
EU Food intervention limit- Dairy [9]	$1000 \text{ Bq L}^{-1}$ or $\text{Bq kg}^{-1}$
EU Food intervention limit- Baby food [9]	$400 \text{ Bq L}^{-1}$ or $\text{Bq kg}^{-1}$
EU Food intervention limit- Liquid [9]	$1000 \text{ Bq L}^{-1}$
EU Food intervention limit- Other food [9]	$1250 \text{ Bq L}^{-1}$ or $\text{Bq kg}^{-1}$
EU Food intervention limit- Minor food [9]	$12500 \text{ Bq L}^{-1}$ or $\text{Bq kg}^{-1}$

$^{210}\text{Po}$  Nuclear data

[www.radioecology-exchange.org](http://www.radioecology-exchange.org)

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### Commonly used or illustrative parameters

Parameters useful for wildlife assessments	Value
Terrestrial EMCL — Soil [10]	$4.35 \times 10^1 \text{ Bq kg}^{-1}$
Freshwater EMCL — Water [10]	$1.45 \times 10^{-3} \text{ Bq L}^{-1}$
Freshwater EMCL — Sediment [10]	$1.7 \times 10^0 \text{ Bq kg}^{-1}$
Marine EMCL — Water [10]	$3.79 \times 10^{-4} \text{ Bq L}^{-1}$
Marine EMCL — Sediment [10]	$1.39 \times 10^3 \text{ Bq kg}^{-1}$
CR Terrestrial mammal (rat) [10]	$8.9 \times 10^{-2}$
CR Freshwater fish [10]	$2.0 \times 10^3$
CR Freshwater mollusc [10]	$1.2 \times 10^5$
CR Marine fish [10]	$8.0 \times 10^4$
CR Marine mollusc [10]	$6.4 \times 10^4$
Internal DCC Terrestrial mammal (rat) on soil [10]	$3.1 \times 10^{-2} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ whole organism
External DCC Terrestrial mammal (rat) in soil [10]	$4.3 \times 10^{-9} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ soil
External DCC Terrestrial mammal (rat) on soil [10]	$1.7 \times 10^{-9} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ soil
Internal DCC Marine fish (benthic) [10]	$3.1 \times 10^{-2} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ whole organism
External DCC Marine fish (benthic) in water [10]	$4.5 \times 10^{-9} \mu\text{Gy h}^{-1}/\text{Bq L}^{-1}$ water
External DCC Marine fish (benthic) at sediment interface [10]	$2.3 \times 10^{-9} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ sediment
Internal DCC Freshwater fish (pelagic) [10]	$3.1 \times 10^{-2} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ whole organism
External DCC Freshwater fish in water [10]	$4.3 \times 10^{-9} \mu\text{Gy h}^{-1}/\text{Bq L}^{-1}$ 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: November 2013  
Data updated: April 2015