

$^{226}\text{Ra}$



### Commonly used or illustrative parameters

Generic parameters	Value
Radioactive half life [1]	1600 Years
Origin [1]	Naturally occurring
Principal decay mode [1]	Alpha ( $\alpha$ )
Specific activity [2]	$3.66 \times 10^1$ GBq/g
Freshwater Kd [3]	$7.4 \times 10^3$ L kg <sup>-1</sup>
Marine Kd [4]	$4 \times 10^3$ L kg <sup>-1</sup>

Parameters useful for human assessments	Value
CR Pasture grass [3]	$7.1 \times 10^{-2}$
CR Freshwater fish [3]	$2.1 \times 10^2$ L kg <sup>-1</sup>
CR Marine fish [4]	$1 \times 10^2$ L kg <sup>-1</sup>
F <sub>f</sub> Cow meat [3]	$1.7 \times 10^{-3}$ d kg <sup>-1</sup>
F <sub>m</sub> Cow milk [3]	$3.8 \times 10^{-4}$ d kg <sup>-1</sup>
Human fractional absorption (f <sub>1</sub> ) [5]	0.3
Inhalation dose coefficient [6]	$3.6 \times 10^{-7}$ Sv Bq <sup>-1</sup>
Ingestion dose coefficient [6]	$2.8 \times 10^{-7}$ Sv Bq <sup>-1</sup>
Biological half life for Human (adult)	No data available
Biological half life for Cow milk	No data available
EU Food intervention limit- Dairy [7]	1000 Bq L <sup>-1</sup> or Bq kg <sup>-1</sup>
EU Food intervention limit- Baby food [7]	400 Bq L <sup>-1</sup> or Bq kg <sup>-1</sup>
EU Food intervention limit- Liquid [7]	1000 Bq L <sup>-1</sup>
EU Food intervention limit- Other food [7]	1250 Bq L <sup>-1</sup> or Bq kg <sup>-1</sup>
EU Food intervention limit- Minor food [7]	12500 Bq L <sup>-1</sup> or Bq kg <sup>-1</sup>

$^{226}\text{Ra}$  nuclear data

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Parameters useful for wildlife assessments	Value
Terrestrial EMCL— Soil [8]	$2.83 \times 10^1 \text{ Bq kg}^{-1}$
Freshwater EMCL—Water [8]	$1.15 \times 10^{-2} \text{ Bq L}^{-1}$
Freshwater EMCL— Sediment [8]	$4.9 \times 10^1 \text{ Bq kg}^{-1}$
Marine EMCL — Water [8]	$1.95 \times 10^{-2} \text{ Bq L}^{-1}$
Marine EMCL — Sediment [8]	$1.89 \times 10^1 \text{ Bq kg}^{-1}$
CR Terrestrial mammal (rat) [8]	$4.4 \times 10^{-2}$
CR Freshwater fish [8]	$1.8 \times 10^2$
CR Freshwater mollusc [8]	$2.4 \times 10^4$
CR Marine fish [8]	$1.4 \times 10^2$
CR Marine mollusc [8]	$6.5 \times 10^1$
Internal DCC Terrestrial mammal (rat) on soil [8]	$1.35 \times 10^{-1} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ whole organism
External DCC Terrestrial mammal (rat) in soil [8]	$8.50 \times 10^{-4} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ soil
External DCC Terrestrial mammal (rat) on soil [8]	$3.4 \times 10^{-4} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ soil
Internal DCC Marine fish (benthic) [8]	$1.35 \times 10^{-1} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ whole organism
External DCC Marine fish (benthic) in water [8]	$9.70 \times 10^{-4} \mu\text{Gy h}^{-1}/\text{Bq L}^{-1}$ water
External DCC Marine fish (benthic) at sediment interface [8]	$4.85 \times 10^{-4} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ sediment
Internal DCC Freshwater fish (pelagic) [8]	$1.43 \times 10^{-1} \text{ Gy h}^{-1}/\text{Bq kg}^{-1}$ whole organism
External DCC Freshwater fish in water [8]	$9.20 \times 10^{-4} \mu\text{Gy h}^{-1}/\text{Bq L}^{-1}$ 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: September 2012  
Data updated : May 2015