

### Commonly used or illustrative parameters

Generic parameters	Value
Radioactive half life [1]	$7.1 \times 10^8$ Years
Origin [1]	natural
Principal decay mode [1]	Alpha
Specific activity [2]	$8.0 \times 10^4$ Bq/g
Freshwater Kd [3]	$5.0 \times 10^1$ L kg <sup>-1</sup>
Marine Kd [4]	$5.0 \times 10^2$ L kg <sup>-1</sup>

Parameters useful for human assessments	Value
CR Pasture grass [3]	$4.6 \times 10^{-2}$
CR Freshwater fish [3]	$2.4 \times 10^0$ L kg <sup>-1</sup>
CR Marine fish [4]	$1.0 \times 10^0$ L kg <sup>-1</sup>
F <sub>f</sub> Cow meat [3]	$3.9 \times 10^{-4}$ d kg <sup>-1</sup>
F <sub>m</sub> Cow milk [3]	$1.8 \times 10^{-3}$ d kg <sup>-1</sup>
Human fractional absorption (f1) [5]	0.02
Inhalation dose coefficient [6]	$8.5 \times 10^{-6}$ Sv Bq <sup>-1</sup>
Ingestion dose coefficient [6]	$4.7 \times 10^{-8}$ Sv Bq <sup>-1</sup>
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 <sup>-1</sup> or Bq kg <sup>-1</sup>
EU Food intervention limit- Baby food [8]	400 Bq L <sup>-1</sup> or Bq kg <sup>-1</sup>
EU Food intervention limit- Liquid [8]	1000 Bq L <sup>-1</sup> or Bq kg <sup>-1</sup>
EU Food intervention limit- Other food [8]	1250 Bq L <sup>-1</sup> or Bq kg <sup>-1</sup>
EU Food intervention limit- Minor food [8]	12500 Bq L <sup>-1</sup> or Bq kg <sup>-1</sup>

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Parameters useful for wildlife assessments	Value
Terrestrial EMCL — Soil [9]	$1.2 \times 10^2 \text{ Bq kg}^{-1}$
Freshwater EMCL — Water [9]	$2.7 \times 10^{-1} \text{ Bq L}^{-1}$
Freshwater EMCL — Sediment [9]	$1.3 \times 10^1 \text{ Bq kg}^{-1}$
Marine EMCL — Water [9]	$2.1 \times 10^{-1} \text{ Bq L}^{-1}$
Marine EMCL — Sediment [9]	$3.6 \times 10^1 \text{ Bq kg}^{-1}$
CR Terrestrial mammal (rat) [9]	$5.5 \times 10^{-3}$
CR Freshwater fish [9]	$7.2 \times 10^1$
CR Freshwater mollusc [9]	$5.6 \times 10^2$
CR Marine fish [9]	$8.8 \times 10^0$
CR Marine mollusc [9]	$3.2 \times 10^1$
Internal DCC Terrestrial mammal (rat) on soil [9]	$2.6 \times 10^{-2} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ whole organism
External DCC Terrestrial mammal (rat) in soil [9]	$6.3 \times 10^{-5} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ soil
External DCC Terrestrial mammal (rat) on soil [9]	$2.9 \times 10^{-5} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ soil
Internal DCC Marine fish (benthic) [9]	$2.6 \times 10^{-2} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ whole organism
External DCC Marine fish (benthic) in water [9]	$8.7 \times 10^{-5} \mu\text{Gy h}^{-1}/\text{Bq L}^{-1}$ water
External DCC Marine fish (benthic) at sediment interface [9]	$4.4 \times 10^{-5} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ sediment
Internal DCC Freshwater fish (pelagic) [9]	$2.4 \times 10^{-2} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ whole organism
External DCC Freshwater fish in water [9]	$8.5 \times 10^{-5} \mu\text{Gy h}^{-1}/\text{Bq L}^{-1}$ 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: July 2014

Data updated : May 2015

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