

<sup>89</sup>Sr



### Commonly used or illustrative parameters

Generic parameters	Value
Radioactive half life [1]	$5.06 \times 10^1$ Days
Origin [1]	fission
Principal decay mode [1]	Beta
Specific activity [2]	$1.07 \times 10^{15}$ Bq/g
Freshwater Kd [3]	$1.2 \times 10^3$ L kg <sup>-1</sup>
Marine Kd [4]	$2 \times 10^2$ L kg <sup>-1</sup>

Parameters useful for human assessments	Value
CR Pasture grass [4]	$1.3 \times 10^0$
CR Freshwater fish [4]	$1.4 \times 10^{-2}$ L kg <sup>-1</sup>
CR Marine fish [3]	$1.0 \times 10^0$ L kg <sup>-1</sup>
F <sub>f</sub> Cow meat [4]	$1.3 \times 10^{-3}$ d kg <sup>-1</sup>
F <sub>m</sub> Cow milk [4]	$1.3 \times 10^{-3}$ d kg <sup>-1</sup>
Human fractional absorption (f <sub>1</sub> ) [5]	0.3
Inhalation dose coefficient [6]	$7.9 \times 10^{-9}$ Sv Bq <sup>-1</sup>
Ingestion dose coefficient [6]	$2.6 \times 10^{-9}$ Sv Bq <sup>-1</sup>
Biological half life for Human (adult) [7]	a: 11 yrs (1.0)
Biological half life for Cow milk [8]	0.5 days (0.93), 3 days (0.06), 16 days (0.004), 315 days (0.0006)
EU Food intervention limit- Dairy [9]	10 000 Bq L <sup>-1</sup> or Bq kg <sup>-1</sup>
EU Food intervention limit- Baby food [9]	4 000 Bq L <sup>-1</sup> or Bq kg <sup>-1</sup>
EU Food intervention limit- Liquid [9]	10 000 Bq L <sup>-1</sup> or Bq kg <sup>-1</sup>
EU Food intervention limit- Other food [9]	12 500 Bq L <sup>-1</sup> or Bq kg <sup>-1</sup>
EU Food intervention limit- Minor food [9]	125 000 Bq L <sup>-1</sup> or Bq kg <sup>-1</sup>

**<sup>89</sup>Sr 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]	$3.7 \times 10^3 \text{ Bq kg}^{-1}$
Freshwater EMCL—Water [10]	$6.58 \times 10^{-1} \text{ Bq L}^{-1}$
Freshwater EMCL— Sediment [10]	$5.13 \times 10^2 \text{ Bq kg}^{-1}$
Marine EMCL — Water [10]	$4.98 \times 10^1 \text{ Bq L}^{-1}$
Marine EMCL — Sediment [10]	$1.45 \times 10^2 \text{ Bq kg}^{-1}$
CR Terrestrial mammal (rat) [10]	$1.7 \times 10^0$
CR Freshwater fish [10]	$8.6 \times 10^2$
CR Freshwater mollusc [10]	$4.6 \times 10^2$
CR Marine fish [10]	$2.5 \times 10^1$
CR Marine mollusc [10]	$1.5 \times 10^2$
Internal DCC Terrestrial mammal (rat) on soil [10]	$3.3 \times 10^{-4} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ whole organism
External DCC Terrestrial mammal (rat) in soil [10]	$4.2 \times 10^{-8} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ soil
External DCC Terrestrial mammal (rat) on soil [10]	$1.7 \times 10^{-8} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ soil
Internal DCC Marine fish (benthic) [10]	$3.2 \times 10^{-4} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ whole organism
External DCC Marine fish (benthic) in water [10]	$1.5 \times 10^{-5} \mu\text{Gy h}^{-1}/\text{Bq L}^{-1}$ water
External DCC Marine fish (benthic) at sediment interface [10]	$7.5 \times 10^{-6} \mu\text{Gy h}^{-1}/\text{Bq L}^{-1}$ water
Internal DCC Freshwater fish (pelagic) [10]	$3.3 \times 10^{-4} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ whole organism
External DCC Freshwater fish in water [10]	$7.7 \times 10^{-6} \mu\text{Gy h}^{-1}/\text{Bq L}^{-1}$ 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