

¹⁴C

Commonly used or illustrative parameters

Generic parameters	Value
Radioactive half life [1]	5700 Years
Origin [1]	Natural, fission & activation
Principal decay mode [1]	Beta
Specific activity [1]	1.66×10^{11} Bq/g
Freshwater Kd [2]	5.0×10^0 L kg ⁻¹
Marine Kd (open ocean) [3]	2.0×10^3 L kg ⁻¹

Parameters useful for human assessments	Value
Carbon Content (pasture) [4]	1.0×10^2 g kg ⁻¹ wet
Carbon Content (milk) [4]	6.5×10^1 g kg ⁻¹ wet
Carbon content (beef) [4]	2.0×10^2 g kg ⁻¹ wet
Carbon content (fish) [4]	1.2×10^2 g kg ⁻¹ wet
Human fractional absorption (f1) [5]	1×10^0
Inhalation dose coefficient [6]	5.8×10^{-9} Sv Bq ⁻¹
Ingestion dose coefficient [6]	5.8×10^{-10} Sv Bq ⁻¹
Biological half life - Human (adult) [7]	40 days
Biological half life - ¹⁴ C-PCB in fish [8]	2.5 to 5 days
EU Food intervention limit - Dairy, liquid [9]	10 000 Bq L ⁻¹ or Bq kg ⁻¹
EU Food intervention limit - Baby food [9]	4 000 Bq L ⁻¹ or Bq kg ⁻¹
EU Food intervention limit - Other food [9]	12 500 Bq L ⁻¹ or Bq kg ⁻¹
EU Food intervention limit - Minor food [9]	125 000 Bq L ⁻¹ or Bq kg ⁻¹
EU Food intervention limit- Other food [9]	EU105 Bq L ⁻¹ or Bq kg ⁻¹

¹⁴C Nuclear data

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Parameters useful for wildlife assessments	Value
Terrestrial EMCL— Soil [10]	$8.4 \times 10^1 \text{ Bq kg}^{-1}$
Freshwater EMCL—Water [10]	$4.76 \times 10^{-1} \text{ Bq L}^{-1}$
Freshwater EMCL— Sediment [10]	$8.62 \times 10^{-1} \text{ Bq kg}^{-1}$
Marine EMCL — Water [10]	$1.16 \times 10^1 \text{ Bq L}^{-1}$
Marine EMCL — Sediment [10]	$3.27 \times 10^3 \text{ Bq kg}^{-1}$
CR Terrestrial mammal (rat) [10]	1.3×10^3
CR Freshwater fish [10]	1.8×10^5
CR Freshwater mollusc [10]	1.8×10^5
CR Marine fish [10]	1.8×10^5
CR Marine mollusc [10]	1.8×10^5
Internal DCC Terrestrial mammal on soil [10]	$2.96 \times 10^{-5} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ whole organism
External DCC Terrestrial mammal (rat) in soil [10]	$0 \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ soil
External DCC Terrestrial mammal (rat) on soil [10]	$0 \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ soil
Internal DCC Marine fish (benthic) [10]	$2.96 \times 10^{-5} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ whole organism
External DCC Marine fish (benthic) in water [10]	$1.80 \times 10^{-8} \mu\text{Gy h}^{-1}/\text{Bq L}^{-1}$ water
External DCC Marine fish (benthic) at sediment interface [10]	$9.0 \times 10^{-9} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ sediment
Internal DCC Freshwater fish (pelagic) [10]	$2.96 \times 10^{-5} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ whole organism
External DCC Freshwater fish in water [10]	$1.80 \times 10^{-8} \mu\text{Gy h}^{-1}/\text{Bq L}^{-1}$ 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

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