

^{99m}Tc



Commonly used or illustrative parameters

Generic parameters	Value
Radioactive half life [1]	6.01×10^0 Hours
Origin [1]	Separation from ^{99}Mo
Principal decay mode [1]	Gamma
Specific activity [2]	1.92×10^{17} Bq g ⁻¹
Freshwater Kd [3]	5×10^0 L kg ⁻¹
Marine Kd [4]	1×10^2 L kg ⁻¹

Parameters useful for human assessments	Value
F_v Pasture grass [3]	7.6×10^1
CR Freshwater fish	No value available
CR Marine fish [4]	1.0×10^1 L kg ⁻¹
F_f Cow meat	No value available
F_m Cow milk	No value available
Human fractional absorption (f1) [5]	0.5
Inhalation dose coefficient [6]	2.0×10^{-11} Sv Bq ⁻¹
Ingestion dose coefficient [6]	2.2×10^{-11} Sv Bq ⁻¹
Biological half life for Human (adult) [7]	1.6 days (0.75), 3.7days (0.2), 22.days (0.05)
Biological half life for Cow milk	No value available
EU Food intervention limit- Dairy [8]	$10\ 000$ Bq L ⁻¹ or Bq kg ⁻¹
EU Food intervention limit- Baby food [8]	$4\ 000$ Bq L ⁻¹ or Bq kg ⁻¹
EU Food intervention limit- Liquid [8]	$10\ 000$ Bq L ⁻¹ or Bq kg ⁻¹
EU Food intervention limit- Other food [8]	$12\ 500$ Bq L ⁻¹ or Bq kg ⁻¹
EU Food intervention limit- Minor food [8]	$125\ 000$ Bq L ⁻¹ or Bq kg ⁻¹

^{99m}Tc Nuclear data

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Parameters useful for wildlife assessments	Value
Terrestrial EMCL— Soil	n/a
Freshwater EMCL—Water	n/a
Freshwater EMCL— Sediment	n/a
Marine EMCL — Water	n/a
Marine EMCL — Sediment	n/a
CR Terrestrial mammal (rat) [9]	3.9×10^{-1}
CR Freshwater fish [9]	9.9×10^1
CR Freshwater mollusc [9]	9.9×10^1
CR Marine fish [9]	8.0×10^1
CR Marine mollusc [9]	8.2×10^3
Internal DCC Terrestrial mammal (rat) on soil [9]	$1.93 \times 10^{-5} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ whole organism
External DCC Terrestrial mammal (rat) in soil [9]	$4.31 \times 10^{-5} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ soil
External DCC Terrestrial mammal (rat) on soil [9]	$2.06 \times 10^{-5} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ soil
Internal DCC Marine fish (benthic) [9]	$1.98 \times 10^{-5} \mu\text{Gy h}^{-1}/\text{Bq kg}^{-1}$ whole organism
External DCC Marine fish (benthic) in water [9]	$6.53 \times 10^{-5} \mu\text{Gy h}^{-1}/\text{Bq L}^{-1}$ water
External DCC Marine fish (benthic) at sediment interface [9]	$3.27 \times 10^{-5} \mu\text{Gy h}^{-1}/\text{Bq L}^{-1}$ water
Internal DCC Freshwater fish (pelagic) [9]	$2.27 \times 10^{-5} \mu\text{Gy h}^{-1} / \text{Bq kg}^{-1}$ whole organism
External DCC Freshwater fish in water [9]	$6.24 \times 10^{-5} \mu\text{Gy h}^{-1}/\text{Bq L}^{-1}$ 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: September 2012
Data updated : May 2015