S-Risk report - Exercice_experts_simulation_1

Administrative information

Name: Exercice_experts_simulation_1

Label: SC

Application: II Site specific risk assessment

Region: Wallonia

Description:

Main results

	Highest RI	Highest ExCR	Highest pRI	Highest CI
Chemical	(>1)	(>10^{-5})	(>1)	(>1)
Lead	3.608e+1	2.381e-8		4.120e-3 (Outdoor air CI)
Trichloroethene	3.529e+1	1.666e-4		6.252e-1 (Water CI)

Conceptual site model

Scenario

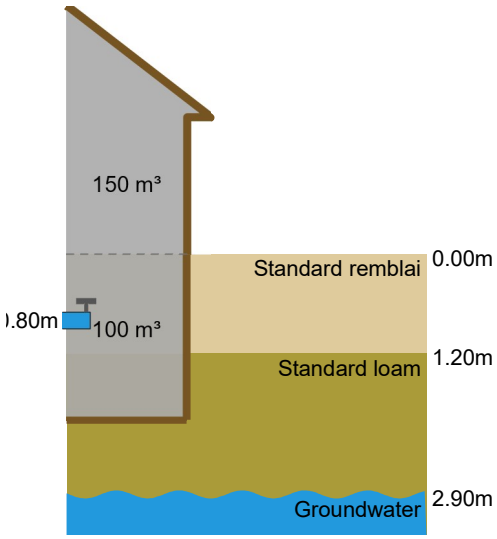
Land use: Residential with vegetable garden

Based on: Residential with vegetable garden

Exposure routes

Oral		Inhalation		Dermal	
☑	soil & settled dust	☑	via outdoor air	☑	via soil & settled dust
☑	vegetables	☑	via indoor air	☑	via water (bath & shower)
☐	via meat & milk	☑	during showering		
☐	via eggs				
☑	via water				

Soil profile & concentrations



Site characteristics

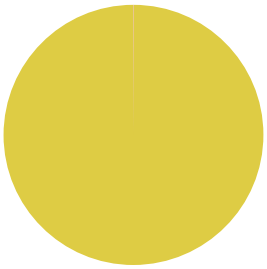
Building type		Basement
Floor thickness	m	0.1
Floor quality setting		Gaps and holes
Drinking water pipe depth	m	0.8
Length of the site	m	50.0

		Standard remblai	Standard loam	Groundwater
Layer properties				
Top of layer	m	0.0	1.2	2.9
OM	%	7.4	2.1	
Clay content	%	5.5	15.0	
pH_{KCl}		7.500e+0	5.800e+0	
Concentrations		**mg/kg dm**	**mg/kg dm**	**µg/l (Calculated)**
Lead		2.060e+2	0	2.142e+0
Trichloroethene		4.800e+0	0	6.950e+2

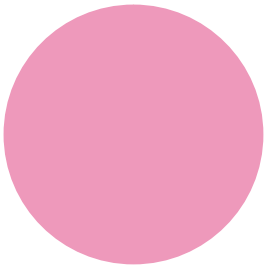
Results per chemical

Lead

Risk indexes



Threshold effect, systemic	Age group 1	Age group 2	Age group 3
Oral RI for systemic threshold effects	3.607e+1	9.667e+0	4.800e+0
Dermal RI for systemic threshold effects	0	0	0
Inhalation RI for systemic threshold effects	7.205e-3	5.030e-3	3.508e-3
Overall RI for systemic threshold effects	3.608e+1	9.672e+0	4.804e+0



Non-threshold, systemic	Age group 1	Age group 2	Age group 3	Lifelong
Oral ExCR for systemic non-threshold effects	1.804e-11	6.090e-12	3.024e-12	4.491e-12
Dermal ExCR for systemic non-threshold effects	0	0	0	0
Inhalation ExCR for systemic non-threshold effects	4.323e-8	3.018e-8	2.105e-8	2.381e-8
Overall ExCR for systemic non-threshold effects	4.325e-8	3.018e-8	2.105e-8	2.381e-8

Concentration indexes

	Concentration index	Limit value
CI Environment		**mg/m^3**
Water CI	0	1.000e+1
Outdoor air CI	4.120e-3	5.000e-4
Indoor air CI		
CI Animal products		**mg/kg fw**
Beef CI		
Sheep meat CI		
Liver CI		
Kidney CI		
Milk CI		

	Concentration index	Limit value
Butter CI		
Egg CI		
CI feed crops		**mg/kg fw**
Grass CI		
Maize CI		

Exposure overview

	1-<6 yr		6-<15 yr		15-<71 yr	
	mg/kg bw·d or mg/m³		mg/kg bw·d or mg/m³		mg/kg bw·d or mg/m³	
Oral intake	**1.804e-3**		**6.090e-4**		**3.024e-4**	
intake via eggs	0	0.0%	0	0.0%	0	0.0%
intake via local vegetables	1.907e-4	10.6%	1.385e-4	22.7%	1.056e-4	34.9%
intake via meat & milk	0	0.0%	0	0.0%	0	0.0%
soil & dust ingestion	1.613e-3	89.4%	4.706e-4	77.3%	1.968e-4	65.1%
intake via water	0	0.0%	0	0.0%	0	0.0%
Dermal intake	**0**		**0**		**0**	
uptake via bathing	0	%	0	%	0	%
uptake via showering	0	%	0	%	0	%
uptake via soil & dust	0	%	0	%	0	%
Intake via inhalation	**3.603e-6**		**2.515e-6**		**1.754e-6**	
inhalation of indoor air	3.442e-6	95.6%	2.350e-6	93.4%	1.634e-6	93.1%
inhalation of outdoor air	1.601e-7	4.4%	1.648e-7	6.6%	1.204e-7	6.9%
inhalation during showering	0	0.0%	0	0.0%	0	0.0%

(*) Refer to the full report for more information about these values.

Local vs background exposure

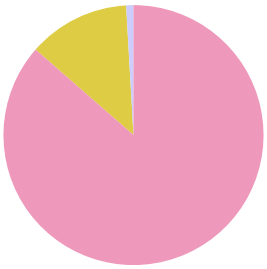
	1-<6 yr		6-<15 yr		15-<71 yr	
	mg/kg bw·d or mg/m³		mg/kg bw·d or mg/m³		mg/kg bw·d or mg/m³	
Oral	**1.804e-3**		**6.090e-4**		**3.024e-4**	
background oral exposure	0	0.0%	0	0.0%	0	0.0%
local oral exposure	1.804e-3	100.0%	6.090e-4	100.0%	3.024e-4	100.0%
Inhal	**3.603e-6**		**2.515e-6**		**1.754e-6**	

	1-<6 yr		6-<15 yr		15-<71 yr	
	mg/kg bw·d or mg/m³		mg/kg bw·d or mg/m³		mg/kg bw·d or mg/m³	
background inhalation exposure	0	0.0%	0	0.0%	0	0.0%
local inhalation exposure	3.603e-6	100.0%	2.515e-6	100.0%	1.754e-6	100.0%

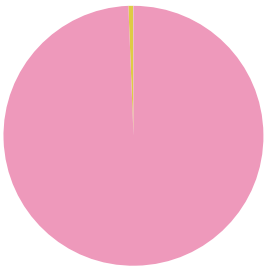
(*) Refer to the full report for more information about these values.

Trichloroethene

Risk indexes



Threshold effect, systemic	Age group 1	Age group 2	Age group 3
Oral RI for systemic threshold effects	4.374e+0	3.215e+0	2.125e+0
Dermal RI for systemic threshold effects	3.079e-1	2.135e-1	1.653e-1
Inhalation RI for systemic threshold effects	3.061e+1	2.098e+1	1.459e+1
Overall RI for systemic threshold effects	3.529e+1	2.441e+1	1.688e+1



Non-threshold, systemic	Age group 1	Age group 2	Age group 3	Lifelong
Oral ExCR for systemic non-threshold effects	1.774e-6	1.304e-6	8.617e-7	9.836e-7
Dermal ExCR for systemic non-threshold effects	1.249e-7	8.659e-8	6.702e-8	7.367e-8
Inhalation ExCR for systemic non-threshold effects	3.061e-4	2.098e-4	1.459e-4	1.655e-4
Overall ExCR for systemic non-threshold effects	3.080e-4	2.112e-4	1.468e-4	1.666e-4

Concentration indexes

	Concentration index	Limit value
CI Environment		**mg/m³**

	Concentration index	Limit value
Water CI	6.252e-1	7.000e+0
Outdoor air CI		
Indoor air CI		
CI Animal products		**mg/kg fw**
Beef CI		
Sheep meat CI		
Liver CI		
Kidney CI		
Milk CI		
Butter CI		
Egg CI		
CI feed crops		**mg/kg fw**
Grass CI		
Maize CI		

Exposure overview

	1-<6 yr		6-<15 yr		15-<71 yr	
	mg/kg bw·d or mg/m³		mg/kg bw·d or mg/m³		mg/kg bw·d or mg/m³	
Oral intake	**2.187e-3**		**1.607e-3**		**1.063e-3**	
intake via eggs	0	0.0%	0	0.0%	0	0.0%
intake via local vegetables	2.060e-3	94.2%	1.533e-3	95.4%	9.456e-4	89.0%
intake via meat & milk	0	0.0%	0	0.0%	0	0.0%
soil & dust ingestion	3.742e-5	1.7%	1.092e-5	0.7%	4.566e-6	0.4%
intake via water	8.916e-5	4.1%	6.302e-5	3.9%	1.123e-4	10.6%
Dermal intake	**1.540e-4**		**1.068e-4**		**8.264e-5**	
uptake via bathing	1.533e-4	99.5%	3.400e-5	31.8%	2.639e-5	31.9%
uptake via showering	0	0.0%	7.218e-5	67.6%	5.601e-5	67.8%
uptake via soil & dust	6.938e-7	0.5%	5.845e-7	0.5%	2.418e-7	0.3%
Intake via inhalation	**6.121e-2**		**4.196e-2**		**2.918e-2**	
inhalation of indoor air	6.120e-2	100.0%	4.178e-2	99.6%	2.905e-2	99.6%
inhalation of outdoor air	1.085e-5	0.0%	9.724e-6	0.0%	5.647e-6	0.0%
inhalation during showering	0	0.0%	1.748e-4	0.4%	1.246e-4	0.4%

(*) Refer to the full report for more information about these values.

Local vs background exposure

	1-<6 yr		6-<15 yr		15-<71 yr	
	mg/kg bw·d or mg/m³		mg/kg bw·d or mg/m³		mg/kg bw·d or mg/m³	
Oral	**2.187e-3**		**1.607e-3**		**1.063e-3**	
background oral exposure	0	0.0%	0	0.0%	0	0.0%
local oral exposure	2.187e-3	100.0%	1.607e-3	100.0%	1.063e-3	100.0%
Inhal	**6.121e-2**		**4.196e-2**		**2.918e-2**	
background inhalation exposure	0	0.0%	0	0.0%	0	0.0%
local inhalation exposure	6.121e-2	100.0%	4.196e-2	100.0%	2.918e-2	100.0%

(*) Refer to the full report for more information about these values.

List of user-modified parameters

In the table below user-modified parameters are listed like they are saved in the system. If the format of the values shown is not immediately clear, refer to the extended report for more details.

Topic	Soil layer	Chemical	Parameter	Value	Comment
Soil	Standard loam (1.2m)		Clay content	1.5E1	
Soil	Standard loam (1.2m)		Organic matter content	2.1E0	
Soil	Standard loam (1.2m)		Top of layer	1.2E0	
Soil	Standard remblai (0.0m)		Clay content	5.5E0	
Soil	Standard remblai (0.0m)		Organic matter content	7.4E0	
Soil	Standard remblai (0.0m)		Top of layer	0.0E0	
Soil	Standard loam (1.2m)	Lead	Measured soil layer concentration	0	
Soil	Standard remblai (0.0m)	Lead	Measured soil layer concentration	206	
Soil	Standard loam (1.2m)	Trichloroethene	Measured soil layer concentration	0	
Soil	Standard remblai (0.0m)	Trichloroethene	Measured soil layer concentration	4.8	
Water			Depth of the groundwater table	2.9	

Version: 1.3.0 - Calculated with version: 1.3.0 - Region: Wallonia