

# S-Risk report - Exercice\_experts\_Simulation\_10

## Administrative information

**Name:** Exercice\_experts\_Simulation\_10  
**Label:** SC  
**Application:** II Site specific risk assessment  
**Region:** Wallonia  
**Description:**

## Main results

	Highest RI	Highest ExCR	Highest pRI	Highest CI
<b>Chemical</b>	(>1)	(>10 <sup>-5</sup> )	(>1)	(>1)
Benzo(a)anthracene		6.207e-5		(Maize CI)
Benzo(a)pyrene		3.569e-4		3.102e-1 (Outdoor air CI)

## Conceptual site model

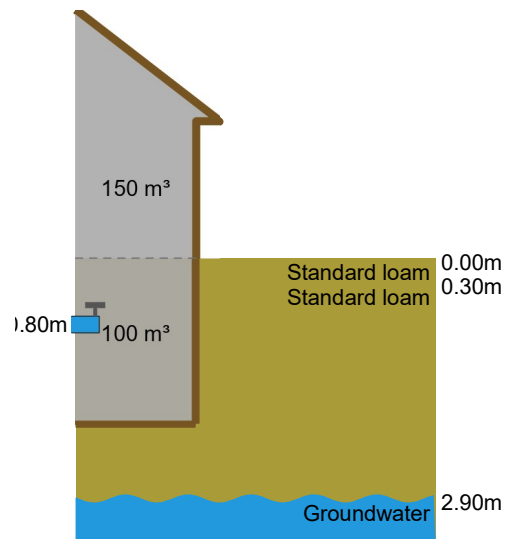
### Scenario

**Land use:** Agricultural  
**Based on:** Agricultural

Exposure routes

Oral	Inhalation	Dermal
<input checked="" type="checkbox"/> soil & settled dust	<input checked="" type="checkbox"/> via outdoor air	<input checked="" type="checkbox"/> via soil & settled dust
<input checked="" type="checkbox"/> vegetables	<input checked="" type="checkbox"/> via indoor air	<input checked="" type="checkbox"/> via water (bath & shower)
<input checked="" type="checkbox"/> via meat & milk	<input checked="" type="checkbox"/> during showering	
<input type="checkbox"/> via eggs		
<input checked="" type="checkbox"/> via water		

### Soil profile & concentrations



### Site characteristics

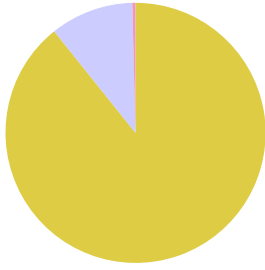
Building type		Basement
Floor thickness	m	0.1
Floor quality setting		Gaps and holes
Drinking water pipe depth	m	0.8
Length of the site	m	50.0

		Standard loam	Standard loam	Groundwater
<b>Layer properties</b>				
Top of layer	m	0.0	0.3	2.9
OM	%	2.5	2.1	
Clay content	%	14.0	15.0	
pH <sub>KCl</sub>		5.800e+0	5.800e+0	
<b>Concentrations</b>		<b>mg/kg dm</b>	<b>mg/kg dm</b>	<b>µg/l (Calculated)</b>
Benzo(a)anthracene		2.200e+2	0	5.795e+0
Benzo(a)pyrene		3.100e+1	0	5.985e-1

## Results per chemical

### Benzo(a)anthracene

#### Risk indexes



<b>Non-threshold, systemic</b>	<b>Age group 1</b>	<b>Age group 2</b>	<b>Age group 3</b>	<b>Lifelong</b>
Oral ExCR for systemic non-threshold effects	2.049e-4	8.047e-5	3.801e-5	5.539e-5
Dermal ExCR for systemic non-threshold effects	1.402e-5	1.181e-5	4.886e-6	6.429e-6
Inhalation ExCR for systemic non-threshold effects	4.501e-7	3.138e-7	2.188e-7	2.476e-7
Overall ExCR for systemic non-threshold effects	2.193e-4	9.259e-5	4.312e-5	6.207e-5

## Concentration indexes

<b>Concentration index</b>	<b>Limit value</b>
<b>CI Environment</b>	<b>mg/m<sup>3</sup></b>
Water CI	
Outdoor air CI	
Indoor air CI	
<b>CI Animal products</b>	<b>mg/kg fw</b>
Beef CI	
Sheep meat CI	
Liver CI	
Kidney CI	
Milk CI	
Butter CI	
Egg CI	
<b>CI feed crops</b>	<b>mg/kg fw</b>
Grass CI	
Maize CI	

## Exposure overview

	<b>1-&lt;6 yr</b>		<b>6-&lt;15 yr</b>		<b>15-&lt;71 yr</b>	
	mg/kg bw·d or mg/m <sup>3</sup>		mg/kg bw·d or mg/m <sup>3</sup>		mg/kg bw·d or mg/m <sup>3</sup>	
<b>Oral intake</b>	<b>1.024e-2</b>		<b>4.023e-3</b>		<b>1.901e-3</b>	
intake via eggs	0	0.0%	0	0.0%	0	0.0%

	1-<6 yr		6-<15 yr		15-<71 yr	
	mg/kg bw·d or mg/m <sup>3</sup>		mg/kg bw·d or mg/m <sup>3</sup>		mg/kg bw·d or mg/m <sup>3</sup>	
intake via local vegetables	9.050e-5	0.9%	6.650e-5	1.7%	4.430e-5	2.3%
intake via meat & milk	8.431e-3	82.3%	3.454e-3	85.9%	1.646e-3	86.6%
soil & dust ingestion	1.722e-3	16.8%	5.026e-4	12.5%	2.102e-4	11.1%
intake via water	0	0.0%	0	0.0%	0	0.0%
<b>Dermal intake</b>	<b>7.009e-4</b>		<b>5.905e-4</b>		<b>2.443e-4</b>	
uptake via bathing	0	0.0%	0	0.0%	0	0.0%
uptake via showering	0	0.0%	0	0.0%	0	0.0%
uptake via soil & dust	7.009e-4	100.0%	5.905e-4	100.0%	2.443e-4	100.0%
<b>Intake via inhalation</b>	<b>4.092e-6</b>		<b>2.853e-6</b>		<b>1.989e-6</b>	
inhalation of indoor air	3.921e-6	95.8%	2.677e-6	93.8%	1.861e-6	93.5%
inhalation of outdoor air	1.712e-7	4.2%	1.762e-7	6.2%	1.287e-7	6.5%
inhalation during showering	0	0.0%	0	0.0%	0	0.0%

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

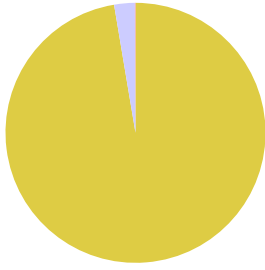
## Local vs background exposure

	1-<6 yr		6-<15 yr		15-<71 yr	
	mg/kg bw·d or mg/m <sup>3</sup>		mg/kg bw·d or mg/m <sup>3</sup>		mg/kg bw·d or mg/m <sup>3</sup>	
<b>Oral</b>	<b>1.024e-2</b>		<b>4.023e-3</b>		<b>1.901e-3</b>	
background oral exposure	0	0.0%	0	0.0%	0	0.0%
local oral exposure	1.024e-2	100.0%	4.023e-3	100.0%	1.901e-3	100.0%
<b>Inhal</b>	<b>4.092e-6</b>		<b>2.853e-6</b>		<b>1.989e-6</b>	
background inhalation exposure	0	0.0%	0	0.0%	0	0.0%
local inhalation exposure	4.092e-6	100.0%	2.853e-6	100.0%	1.989e-6	100.0%

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

## Benzo(a)pyrene

### Risk indexes



<b>Non-threshold, systemic</b>	<b>Age group 1</b>	<b>Age group 2</b>	<b>Age group 3</b>	<b>Lifelong</b>
Oral ExCR for systemic non-threshold effects	1.227e-3	5.052e-4	2.436e-4	3.475e-4
Dermal ExCR for systemic non-threshold effects	1.975e-5	1.664e-5	6.885e-6	9.059e-6
Inhalation ExCR for systemic non-threshold effects	5.988e-7	4.179e-7	2.915e-7	3.297e-7
Overall ExCR for systemic non-threshold effects	1.248e-3	5.222e-4	2.508e-4	3.569e-4

### Concentration indexes

	<b>Concentration index</b>	<b>Limit value</b>
<b>CI Environment</b>		<b>mg/m<sup>3</sup></b>
Water CI	0	1.000e-2
Outdoor air CI	3.102e-1	1.000e-6
Indoor air CI		
<b>CI Animal products</b>		<b>mg/kg fw</b>
Beef CI		
Sheep meat CI		
Liver CI		
Kidney CI		
Milk CI		
Butter CI		
Egg CI		
<b>CI feed crops</b>		<b>mg/kg fw</b>
Grass CI		
Maize CI		

### Exposure overview

	<b>1-&lt;6 yr</b>		<b>6-&lt;15 yr</b>		<b>15-&lt;71 yr</b>	
	mg/kg bw·d or mg/m <sup>3</sup>		mg/kg bw·d or mg/m <sup>3</sup>		mg/kg bw·d or mg/m <sup>3</sup>	
<b>Oral intake</b>	<b>6.136e-3</b>		<b>2.526e-3</b>		<b>1.218e-3</b>	
intake via eggs	0	0.0%	0	0.0%	0	0.0%

	1-<6 yr		6-<15 yr		15-<71 yr	
	mg/kg bw·d or mg/m <sup>3</sup>		mg/kg bw·d or mg/m <sup>3</sup>		mg/kg bw·d or mg/m <sup>3</sup>	
intake via local vegetables	1.020e-5	0.2%	7.449e-6	0.3%	5.043e-6	0.4%
intake via meat & milk	5.883e-3	95.9%	2.448e-3	96.9%	1.183e-3	97.2%
soil & dust ingestion	2.427e-4	4.0%	7.082e-5	2.8%	2.961e-5	2.4%
intake via water	0	0.0%	0	0.0%	0	0.0%
<b>Dermal intake</b>	<b>9.877e-5</b>		<b>8.321e-5</b>		<b>3.443e-5</b>	
uptake via bathing	0	0.0%	0	0.0%	0	0.0%
uptake via showering	0	0.0%	0	0.0%	0	0.0%
uptake via soil & dust	9.877e-5	100.0%	8.321e-5	100.0%	3.443e-5	100.0%
<b>Intake via inhalation</b>	<b>5.443e-7</b>		<b>3.799e-7</b>		<b>2.650e-7</b>	
inhalation of indoor air	5.202e-7	95.6%	3.551e-7	93.5%	2.469e-7	93.2%
inhalation of outdoor air	2.411e-8	4.4%	2.482e-8	6.5%	1.813e-8	6.8%
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/m <sup>3</sup>		mg/kg bw·d or mg/m <sup>3</sup>		mg/kg bw·d or mg/m <sup>3</sup>	
<b>Oral</b>	<b>6.136e-3</b>		<b>2.526e-3</b>		<b>1.218e-3</b>	
background oral exposure	0	0.0%	0	0.0%	0	0.0%
local oral exposure	6.136e-3	100.0%	2.526e-3	100.0%	1.218e-3	100.0%
<b>Inhal</b>	<b>5.443e-7</b>		<b>3.799e-7</b>		<b>2.650e-7</b>	
background inhalation exposure	0	0.0%	0	0.0%	0	0.0%
local inhalation exposure	5.443e-7	100.0%	3.799e-7	100.0%	2.650e-7	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 (0.0m)		Top of layer	0.0E0	

Topic	Soil layer	Chemical	Parameter	Value	Comment
Soil	Standard loam (0.3m)		Clay content	1.5E1	
Soil	Standard loam (0.3m)		Organic matter content	2.1E0	
Soil	Standard loam (0.3m)		Top of layer	3.0E-1	
Soil	Standard loam (0.0m)	Benzo(a)anthracene	Measured soil layer concentration	220	
Soil	Standard loam (0.3m)	Benzo(a)anthracene	Measured soil layer concentration	0	
Soil	Standard loam (0.0m)	Benzo(a)pyrene	Measured soil layer concentration	31	
Soil	Standard loam (0.3m)	Benzo(a)pyrene	Measured soil layer concentration	0	
Water			Depth of the groundwater table	2.9	

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