

**CLEA Software Version 1.06**

Report generated 24/11/2011

Report title St. Mary's Park, Limerick

Created by D Brooks at Verde



**BASIC SETTINGS**

Land Use	Residential without homegrown produce	Start age class	1	End age class	6	Exposure Duration	6 years
Building	Small terraced house						
Receptor	Female (res)						
Soil	Sandy loam						
<b>Exposure Pathways</b>							
	Direct soil and dust ingestion		<input checked="" type="checkbox"/>	Dermal contact with indoor dust		<input checked="" type="checkbox"/>	Inhalation of indoor dust
	Consumption of homegrown produce		<input checked="" type="checkbox"/>	Dermal contact with soil		<input checked="" type="checkbox"/>	Inhalation of soil dust
	Soil attached to homegrown produce		<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	Inhalation of indoor vapour
						<input checked="" type="checkbox"/>	Inhalation of outdoor vapour

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Land Use Residential without homegrown produce

Age Class	Exposure Frequencies (days yr <sup>-1</sup> )							Occupation Periods (hr day <sup>-1</sup> )		Soil to skin adherence factors (mg cm <sup>2</sup> )		Direct soil ingestion rate (g day <sup>-1</sup> )
	Direct soil ingestion	Consumption of homegrown produce	Dermal contact with indoor dust	Dermal contact with soil	Inhalation of dust and vapour, indoor	Inhalation of dust and vapour, outdoor	Indoors	Outdoors	Indoor	Outdoor		
1	43	180	180	26	365	365	23.0	1.0	0.06	1.00	0.10	
2	86	365	365	52	365	365	23.0	1.0	0.06	1.00	0.10	
3	86	365	365	52	365	365	23.0	1.0	0.06	1.00	0.10	
4	86	365	365	52	365	365	23.0	1.0	0.06	1.00	0.10	
5	86	365	365	52	365	365	19.0	1.0	0.06	1.00	0.10	
6	86	365	365	52	365	365	19.0	1.0	0.06	1.00	0.10	
7	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	
8	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	
9	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	
10	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	
11	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	
12	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	
13	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	
14	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	
15	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	
16	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	
17	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	
18	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00	

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Receptor Female (res)

Age Class	Body weight (kg)	Body height (m)	Inhalation rate (m <sup>3</sup> day <sup>-1</sup> )	Max exposed skin factor		Consumption rates (g FW kg <sup>-1</sup> BW day <sup>-1</sup> )						
				Indoor (m <sup>2</sup> m <sup>-2</sup> )	Outdoor (m <sup>2</sup> m <sup>-2</sup> )	Total skin area (m <sup>2</sup> )	Green vegetables	Root vegetables	Tuber vegetables	Herbaceous fruit	Shrub fruit	Tree fruit
1	5.60	0.7	8.5	0.32	0.26	3.43E-01	7.12	10.69	16.03	1.83	2.23	3.82
2	9.80	0.8	13.3	0.33	0.26	4.84E-01	6.85	3.30	5.46	3.96	0.54	11.96
3	12.70	0.9	12.7	0.32	0.25	5.82E-01	6.85	3.30	5.46	3.96	0.54	11.96
4	15.10	0.9	12.2	0.35	0.28	6.36E-01	6.85	3.30	5.46	3.96	0.54	11.96
5	16.90	1.0	12.2	0.35	0.28	7.04E-01	3.74	1.77	3.38	1.85	0.16	4.26
6	19.70	1.1	12.2	0.33	0.26	7.94E-01	3.74	1.77	3.38	1.85	0.16	4.26
7	22.10	1.2	12.4	0.22	0.15	8.73E-01	3.74	1.77	3.38	1.85	0.16	4.26
8	25.30	1.2	12.4	0.22	0.15	9.36E-01	3.74	1.77	3.38	1.85	0.16	4.26
9	27.50	1.3	12.4	0.22	0.15	1.01E+00	3.74	1.77	3.38	1.85	0.16	4.26
10	31.40	1.3	12.4	0.22	0.15	1.08E+00	3.74	1.77	3.38	1.85	0.16	4.26
11	35.70	1.4	12.4	0.22	0.14	1.19E+00	3.74	1.77	3.38	1.85	0.16	4.26
12	41.30	1.4	13.4	0.22	0.14	1.29E+00	3.74	1.77	3.38	1.85	0.16	4.26
13	47.20	1.5	13.4	0.22	0.14	1.42E+00	3.74	1.77	3.38	1.85	0.16	4.26
14	51.20	1.6	13.4	0.22	0.14	1.52E+00	3.74	1.77	3.38	1.85	0.16	4.26
15	56.70	1.6	13.4	0.21	0.14	1.60E+00	3.74	1.77	3.38	1.85	0.16	4.26
16	59.00	1.6	13.4	0.21	0.14	1.63E+00	3.74	1.77	3.38	1.85	0.16	4.26
17	70.00	1.6	14.8	0.33	0.27	1.78E+00	2.94	1.40	1.79	1.61	0.22	2.97
18	70.90	1.6	12.0	0.33	0.27	1.80E+00	2.94	1.40	1.79	1.61	0.22	2.97



**Building Small terraced house**

**Soil Sandy loam**

Building footprint (m <sup>2</sup> )	2.80E+01	Porosity, Total (cm <sup>3</sup> cm <sup>-3</sup> )	5.30E-01
Living space air exchange rate (hr <sup>-1</sup> )	5.00E-01	Porosity, Air-Filled (cm <sup>3</sup> cm <sup>-3</sup> )	2.00E-01
Living space height (above ground, m)	4.80E+00	Porosity, Water-Filled (cm <sup>3</sup> cm <sup>-3</sup> )	3.30E-01
Living space height (below ground, m)	0.00E+00	Residual soil water content (cm <sup>3</sup> cm <sup>-3</sup> )	1.20E-01
Pressure difference (soil to enclosed space, Pa)	3.10E+00	Saturated hydraulic conductivity (cm s <sup>-1</sup> )	3.56E-03
Foundation thickness (m)	1.50E-01	van Genuchten shape parameter <i>m</i> (dimensionless)	3.20E-01
Floor crack area (cm <sup>2</sup> )	4.23E+02	Bulk density (g cm <sup>-3</sup> )	1.21E+00
Dust loading factor (µg m <sup>-3</sup> )	5.00E+01	Threshold velocity of wind speed at 10m (m s <sup>-1</sup> )	7.20E+00
		Empirical function <i>K<sub>d</sub></i> for dust model (dimensionless)	1.22E+00
		Ambient soil temperature (K)	2.83E+02
		Soil pH	7.00E+00
		Soil Organic Matter content (%)	5.00E+00
		Fraction of organic carbon (g g <sup>-1</sup> )	2.90E-02
		Effective total fluid saturation (unitless)	5.12E-01
		Intrinsic soil permeability (cm <sup>2</sup> )	4.75E-08
		Relative soil air permeability (unitless)	6.42E-01
		Effective air permeability (cm <sup>2</sup> )	3.05E-08

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**Soil - Vapour Model**

**Air Dispersion Model**

Depth to top of source (no building) (cm)	0
Depth to top of source (beneath building) (cm)	65
Default soil gas ingress rate?	Yes
Soil gas ingress rate (cm <sup>3</sup> s <sup>-1</sup> )	2.50E+01
Building ventilation rate (cm <sup>3</sup> s <sup>-1</sup> )	1.87E+04
Averaging time surface emissions (yr)	6
Finite vapour source model?	No
Thickness of contaminated layer (cm)	200

Mean annual windspeed at 10m (m s <sup>-1</sup> )	5.00
Air dispersion factor at height of 0.8m *	2400.00
Air dispersion factor at height of 1.6m *	0.00

Fraction of site cover (m <sup>2</sup> m <sup>-2</sup> )	0
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\* Air dispersion factor in g m<sup>-2</sup> s<sup>-1</sup> per kg m<sup>3</sup>

**Soil - Plant Model**

	Dry weight conversion factor		Homegrown fraction		Soil loading factor	Preparation correction factor
	g DW g <sup>-1</sup> FW	dimensionless	Average	High		
Green vegetables	0.096	0.05	0.05	0.33	1.00E-03	dimensionless
Root vegetables	0.103	0.06	0.06	0.40	1.00E-03	2.00E-01
Tuber vegetables	0.210	0.02	0.02	0.13	1.00E-03	1.00E+00
Herbaceous fruit	0.058	0.06	0.06	0.40	1.00E-03	1.00E+00
Shrub fruit	0.166	0.09	0.09	0.60	1.00E-03	6.00E-01
Tree fruit	0.157	0.04	0.04	0.27	1.00E-03	6.00E-01

Gardener type Average

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**RESULTS**

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		Assessment Criterion (mg kg <sup>-1</sup> )			Ratio of ADE to HCV			Saturation Limit (mg kg <sup>-1</sup> )	50% rule?	
		oral	inhalation	combined	oral	inhalation	combined		Oral	Inhal
1	Arsenic	1.55E+02	1.18E+02	NR	0.76	1.00	NR	NR	No	No
2	Cadmium	1.02E+02	4.14E+01	3.64E+01	0.22	0.78	1.00	NR	Yes	Yes
3	Mercury, inorganic	1.11E+03	3.55E+03	8.45E+02	0.76	0.24	1.00	NR	No	No
4	Nickel	3.33E+03	1.77E+02	NR	0.03	1.00	NR	NR	Yes	Yes
5	Selenium	2.50E+03	NR	NR	1.00	NR	NR	NR	Yes	No
6	Chromium III	8.37E+04	4.95E+03	4.67E+03	0.06	0.94	1.00	NR	No	No
7	Copper	4.57E+04	1.45E+04	1.22E+04	0.15	0.85	1.00	NR	Yes	No
8	Zinc	1.71E+05	3.55E+07	1.71E+05	1.00	0.00	1.00	NR	Yes	No
9	Acenaphthene	2.35E+04	1.70E+04	9.86E+03	0.42	0.58	1.00	2.81E+02 (sol)	No	No
10	Acenaphylene	2.35E+04	1.60E+04	9.51E+03	0.40	0.60	1.00	4.22E+02 (sol)	No	No
11	Anthracene	1.18E+05	5.23E+05	9.60E+04	0.82	0.18	1.00	5.80E+00 (vap)	No	No
12	Benz(a)anthracene	5.41E+01	1.62E+01	1.25E+01	0.23	0.77	1.00	8.56E+00 (sol)	No	No
13	Benzo(a)pyrene	7.84E+00	3.97E+00	2.64E+00	0.34	0.66	1.00	4.55E+00 (vap)	No	No
14	Benzo(b)fluoranthene	5.56E+01	2.80E+01	1.86E+01	0.33	0.67	1.00	6.07E+00 (sol)	No	No
15	Benzo(ghi)perylene	3.56E+02	1.85E+02	1.22E+02	0.34	0.66	1.00	7.69E-02 (vap)	No	No
16	Benzo(k)fluoranthene	7.84E+01	3.99E+01	2.64E+01	0.34	0.66	1.00	3.43E+00 (sol)	No	No
17	Chrysene	7.84E+01	3.59E+01	2.46E+01	0.31	0.69	1.00	2.20E+00 (vap)	No	No
18	Dibenz(ah)anthracene	7.05E+00	3.47E+00	2.32E+00	0.33	0.67	1.00	1.96E-02 (vap)	No	No
19	Fluoranthene	4.89E+03	1.18E+05	4.70E+03	0.96	0.04	1.00	9.45E+01 (vap)	No	No
20	Fluorene	1.57E+04	2.13E+04	9.03E+03	0.58	0.42	1.00	1.53E+02 (sol)	No	No



		Assessment Criterion (mg kg <sup>-1</sup> )			Ratio of ADE to HCV			Saturation Limit (mg kg <sup>-1</sup> )	50% rule?	
		oral	inhalation	combined	oral	inhalation	combined		Oral	Inhal
21	Indeno(123-cd)pyrene	3.37E+01	1.66E+01	1.11E+01	0.33	0.67	1.00	3.07E-01 (vap)	No	No
22	Naphthalene	7.68E+03	7.75E+00	7.74E+00	0.00	1.00	1.00	3.61E+02 (sol)	No	No
23	Phenanthrene	4.86E+03	2.44E+04	4.05E+03	0.83	0.17	1.00	1.79E+02 (sol)	No	No
24	Pyrene	1.17E+04	2.73E+05	1.13E+04	0.96	0.04	1.00	1.10E+01 (vap)	No	No
25	Phenol	3.88E+05	1.38E+03	1.38E+03	0.00	1.00	1.00	1.48E+05 (vap)	No	No
26										
27										
28										
29										
30										

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		Soil Distribution				Media Concentrations													
		Sorbed	Dissolved	Vapour	Total	Soil	Soil gas	Indoor Dust	Outdoor dust at 0.8m	Outdoor dust at 1.6m	Indoor Vapour	Outdoor vapour at 0.8m	Outdoor vapour at 1.6m	Green vegetables	Root vegetables	Tuber vegetables	Herbaceous fruit	Shrub fruit	Tree fruit
		%	%	%	%	mg kg <sup>-1</sup>	mg m <sup>-3</sup>	mg kg <sup>-1</sup>	mg m <sup>-3</sup>	mg m <sup>-3</sup>	mg m <sup>-3</sup>	mg m <sup>-3</sup>	mg m <sup>-3</sup>	mg kg <sup>-1</sup> FW	mg kg <sup>-1</sup> FW	mg kg <sup>-1</sup> FW	mg kg <sup>-1</sup> FW	mg kg <sup>-1</sup> FW	mg kg <sup>-1</sup> FW
1	Arsenic	99.9	0.1	0.0	100.0	1.18E+02	NR	3.90E+01	2.01E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	NA	NA	NA	NA
2	Cadmium	99.7	0.3	0.0	100.0	3.64E+01	NR	1.20E+01	6.19E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	NA	NA	NA	NA
3	Mercury, inorganic	99.9	0.1	0.0	100.0	8.45E+02	NR	2.79E+02	1.44E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	NA	NA	NA	NA
4	Nickel	99.9	0.1	0.0	100.0	1.77E+02	NR	5.86E+01	3.02E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	NA	NA	NA	NA
5	Selenium	99.5	0.5	0.0	100.0	2.50E+03	NR	8.26E+02	4.26E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	NA	NA	NA	NA
6	Chromium III	100.0	0.0	0.0	100.0	4.67E+03	NR	1.54E+03	7.95E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	NA	NA	NA	NA
7	Copper	99.7	0.3	0.0	100.0	1.22E+04	NR	4.04E+03	2.08E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	NA	NA	NA	NA
8	Zinc	99.3	0.7	0.0	100.0	1.71E+05	NR	5.64E+04	2.91E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	NA	NA	NA	NA
9	Acenaphthene	99.6	0.4	0.0	100.0	9.86E+03	1.10E+02	3.25E+03	1.68E-05	0.00E+00	3.74E-02	4.83E-04	0.00E+00	NA	NA	NA	NA	NA	NA
10	Acenaphylene	99.5	0.5	0.0	100.0	9.51E+03	1.02E+02	3.14E+03	1.62E-05	0.00E+00	3.84E-02	4.90E-04	0.00E+00	NA	NA	NA	NA	NA	NA
11	Anthracene	99.8	0.2	0.0	100.0	9.60E+04	1.06E+02	3.17E+04	1.63E-04	0.00E+00	5.76E-02	2.09E-03	0.00E+00	NA	NA	NA	NA	NA	NA
12	Benz(a)anthracene	100.0	0.0	0.0	100.0	1.25E+01	1.75E-04	4.12E+00	2.12E-08	0.00E+00	1.69E-07	5.94E-08	0.00E+00	NA	NA	NA	NA	NA	NA
13	Benzo(a)pyrene	100.0	0.0	0.0	100.0	2.64E+00	1.24E-06	8.70E-01	4.49E-09	0.00E+00	1.64E-09	9.27E-09	0.00E+00	NA	NA	NA	NA	NA	NA
14	Benzo(b)fluoranthene	100.0	0.0	0.0	100.0	1.86E+01	1.26E-05	6.14E+00	3.17E-08	0.00E+00	1.64E-08	7.21E-08	0.00E+00	NA	NA	NA	NA	NA	NA
15	Benzo(ghi)perylene	100.0	0.0	0.0	100.0	1.22E+02	2.88E-05	4.02E+01	2.07E-07	0.00E+00	3.71E-08	2.35E-07	0.00E+00	NA	NA	NA	NA	NA	NA
16	Benzo(k)fluoranthene	100.0	0.0	0.0	100.0	2.64E+01	1.07E-05	8.73E+00	4.80E-08	0.00E+00	1.41E-08	8.62E-08	0.00E+00	NA	NA	NA	NA	NA	NA
17	Chrysene	100.0	0.0	0.0	100.0	2.46E+01	4.91E-05	8.12E+00	4.19E-08	0.00E+00	6.31E-08	1.35E-07	0.00E+00	NA	NA	NA	NA	NA	NA
18	Dibenz(ah)anthracene	100.0	0.0	0.0	100.0	2.32E+00	2.32E-06	7.67E-01	3.96E-09	0.00E+00	2.88E-09	6.57E-09	0.00E+00	NA	NA	NA	NA	NA	NA
19	Fluoranthene	99.9	0.1	0.0	100.0	4.70E+03	5.59E-01	1.55E+03	7.99E-06	0.00E+00	4.48E-04	4.96E-05	0.00E+00	NA	NA	NA	NA	NA	NA
20	Fluorene	99.7	0.3	0.0	100.0	9.03E+03	4.54E+01	2.98E+03	1.54E-05	0.00E+00	1.81E-02	3.31E-04	0.00E+00	NA	NA	NA	NA	NA	NA



		Soil Distribution				Media Concentrations													
		Sorbed	Dissolved	Vapour	Total	Soil	Soil gas	Indoor Dust	Outdoor dust at 0.8m	Outdoor dust at 1.6m	Indoor Vapour	Outdoor vapour at 0.8m	Outdoor vapour at 1.6m	Green vegetables	Root vegetables	Tuber vegetables	Herbaceous fruit	Shrub fruit	Tree fruit
		%	%	%	%	mg kg <sup>-1</sup>	mg m <sup>-3</sup>	mg kg <sup>-1</sup>	mg m <sup>-3</sup>	mg m <sup>-3</sup>	mg m <sup>-3</sup>	mg m <sup>-3</sup>	mg m <sup>-3</sup>	mg kg <sup>-1</sup> FW	mg kg <sup>-1</sup> FW	mg kg <sup>-1</sup> FW	mg kg <sup>-1</sup> FW	mg kg <sup>-1</sup> FW	mg kg <sup>-1</sup> FW
21	Indeno(123-cd)pyrene	100.0	0.0	0.0	100.0	1.11E+01	9.03E-06	3.67E+00	1.89E-08	0.00E+00	1.18E-08	4.66E-08	0.00E+00	NA	NA	NA	NA	NA	NA
22	Naphthalene	98.6	1.4	0.0	100.0	7.74E+00	2.70E+00	2.55E+00	1.32E-08	0.00E+00	7.45E-04	1.85E-06	0.00E+00	NA	NA	NA	NA	NA	NA
23	Phenanthrene	99.8	0.2	0.0	100.0	4.05E+03	3.63E+00	1.34E+03	6.90E-06	0.00E+00	2.16E-03	8.63E-05	0.00E+00	NA	NA	NA	NA	NA	NA
24	Pyrene	99.9	0.1	0.0	100.0	1.13E+04	1.35E+00	3.72E+03	1.92E-05	0.00E+00	1.13E-03	1.26E-04	0.00E+00	NA	NA	NA	NA	NA	NA
25	Phenol	89.8	10.2	0.0	100.0	1.38E+03	4.28E+00	4.54E+02	2.34E-06	0.00E+00	5.38E-03	2.39E-04	0.00E+00	NA	NA	NA	NA	NA	NA
26																			
27																			
28																			
29																			
30																			

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	Average Daily Exposure (mg kg <sup>-1</sup> bw day <sup>-1</sup> )							Distribution by Pathway (%)							
	Direct soil ingestion	Consumption of homegrown produce and attached soil	Dermal contact with soil and dust	Inhalation of dust	Inhalation of vapour	Background (oral)	Background (inhalation)	Direct soil ingestion	Consumption of homegrown produce and attached soil	Dermal contact with soil and dust	Inhalation of dust	Inhalation of vapour (indoor)	Inhalation of vapour (outdoor)	Background (oral)	Background (inhalation)
1 Arsenic	2.07E-04	0.00E+00	2.18E-05	2.00E-06	0.00E+00	0.00E+00	0.00E+00	89.68	0.00	9.45	0.87	0.00	0.00	0.00	0.00
2 Cadmium	6.38E-05	0.00E+00	2.24E-07	6.15E-07	0.00E+00	7.54E-04	1.21E-06	49.35	0.00	0.17	0.48	0.00	0.00	49.52	0.48
3 Mercury, inorganic	1.48E-03	0.00E+00	0.00E+00	1.43E-05	0.00E+00	5.63E-05	0.00E+00	95.45	0.00	0.00	0.92	0.00	0.00	3.63	0.00
4 Nickel	3.11E-04	0.00E+00	5.46E-06	3.00E-06	0.00E+00	7.31E-03	3.64E-06	48.22	0.00	0.85	0.47	0.00	0.00	49.53	0.47
5 Selenium	4.38E-03	0.00E+00	0.00E+00	4.23E-05	0.00E+00	1.97E-03	3.64E-06	68.51	0.00	0.00	0.66	0.00	0.00	30.82	0.00
6 Chromium III	8.18E-03	0.00E+00	0.00E+00	7.90E-05	0.00E+00	3.39E-03	1.64E-05	70.15	0.00	0.00	0.68	0.00	0.00	29.03	0.14
7 Copper	2.14E-02	0.00E+00	0.00E+00	2.07E-04	0.00E+00	3.94E-01	4.12E-05	49.71	0.00	0.00	0.48	0.00	0.00	49.71	0.10
8 Zinc	2.99E-01	0.00E+00	0.00E+00	2.89E-03	0.00E+00	1.52E+00	1.45E-04	49.75	0.00	0.00	0.48	0.00	0.00	49.75	0.02
9 Acenaphthene	1.73E-02	0.00E+00	7.89E-03	1.67E-04	3.47E-02	5.51E-05	1.52E-06	28.77	0.00	13.14	0.28	57.69	0.03	0.09	0.00
10 Acenaphylene	1.67E-02	0.00E+00	7.61E-03	1.61E-04	3.56E-02	7.88E-06	6.67E-07	27.76	0.00	12.68	0.27	59.25	0.03	0.01	0.00
11 Anthracene	1.68E-01	0.00E+00	7.68E-02	1.62E-03	5.34E-02	4.50E-06	2.49E-06	56.06	0.00	25.60	0.54	17.77	0.03	0.00	0.00
12 Benz(a)anthracene	2.19E-05	0.00E+00	9.98E-06	2.11E-07	1.58E-07	3.38E-06	6.67E-07	67.86	0.00	30.99	0.65	0.48	0.01	0.00	0.00
13 Benzo(a)pyrene	4.62E-06	0.00E+00	2.11E-06	4.46E-08	1.90E-09	6.19E-06	3.64E-07	68.18	0.00	31.13	0.66	0.02	0.01	0.00	0.00
14 Benzo(b)fluoranthene	3.26E-05	0.00E+00	1.49E-05	3.15E-07	1.82E-08	6.19E-06	7.88E-07	68.17	0.00	31.13	0.66	0.03	0.01	0.00	0.00
15 Benzo(ghi)perylene	2.14E-04	0.00E+00	9.75E-05	2.06E-06	4.42E-08	3.38E-06	6.06E-07	68.19	0.00	31.14	0.66	0.01	0.00	0.00	0.00
16 Benzo(k)fluoranthene	4.63E-05	0.00E+00	2.12E-05	4.47E-07	1.67E-08	5.06E-06	4.24E-07	68.18	0.00	31.13	0.66	0.02	0.01	0.00	0.00
17 Chrysene	4.31E-05	0.00E+00	1.97E-05	4.16E-07	6.40E-08	6.19E-06	1.03E-06	68.13	0.00	31.11	0.66	0.09	0.01	0.00	0.00
18 Dibenz(ah)anthracene	4.07E-06	0.00E+00	1.86E-06	3.93E-08	2.94E-09	2.25E-06	2.00E-06	68.17	0.00	31.13	0.66	0.04	0.00	0.00	0.00
19 Fluoranthene	8.23E-03	0.00E+00	3.76E-03	7.94E-05	4.16E-04	1.97E-05	5.09E-06	65.79	0.00	30.04	0.63	3.31	0.02	0.16	0.04
20 Fluorene	1.58E-02	0.00E+00	7.23E-03	1.53E-04	1.68E-02	3.32E-05	5.82E-06	39.54	0.00	18.06	0.38	41.88	0.03	0.08	0.01



		Average Daily Exposure (mg kg <sup>-1</sup> bw day <sup>-1</sup> )							Distribution by Pathway (%)							
		Direct soil ingestion	Consumption of homegrown produce and attached soil	Dermal contact with soil and dust	Inhalation of dust	Inhalation of vapour	Background (oral)	Background (inhalation)	Direct soil ingestion	Consumption of homegrown produce	Dermal contact with soil and dust	Inhalation of dust	Inhalation of vapour (indoor)	Inhalation of vapour (outdoor)	Background (oral)	Background (inhalation)
21	Indeno(123-cd)pyrene	1.95E-05	0.00E+00	8.90E-06	1.88E-07	1.28E-08	5.63E-06	5.46E-07	68.17	0.00	31.13	0.66	0.04	0.01	0.00	0.00
22	Naphthalene	1.36E-05	0.00E+00	6.19E-06	1.31E-07	6.89E-04	3.94E-04	1.70E-04	1.51	0.00	0.69	0.01	76.70	0.01	2.20	18.88
23	Phenanthrene	7.11E-03	0.00E+00	3.24E-03	6.86E-05	2.00E-03	8.66E-05	3.14E-05	56.66	0.00	25.87	0.55	15.95	0.03	0.69	0.25
24	Pyrene	1.97E-02	0.00E+00	9.01E-03	1.90E-04	1.05E-03	1.97E-05	3.94E-06	65.77	0.00	30.03	0.63	3.47	0.02	0.07	0.01
25	Phenol	2.41E-03	0.00E+00	2.54E-03	2.33E-05	4.99E-03	1.97E-02	2.42E-03	16.29	0.00	7.17	0.16	33.64	0.07	16.29	16.39
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		Oral Health Criteria Value ( $\mu\text{g kg}^{-1} \text{ BW day}^{-1}$ )		Inhalation Health Criteria Value ( $\mu\text{g kg}^{-1} \text{ BW day}^{-1}$ )		Oral Mean Daily Intake ( $\mu\text{g day}^{-1}$ )		Inhalation Mean Daily Intake ( $\mu\text{g day}^{-1}$ )		Air-water partition coefficient ( $K_{aw}$ ) ( $\text{cm}^3 \text{ cm}^{-3}$ )		Coefficient of Diffusion in Air ( $\text{m}^2 \text{ s}^{-1}$ )		Coefficient of Diffusion in Water ( $\text{m}^2 \text{ s}^{-1}$ )		$\log K_{oc}$ ( $\text{cm}^3 \text{ g}^{-1}$ )		$\log K_{ow}$ (dimensionless)		Dermal Absorption Fraction (dimensionless)		Soil-to-dust transport factor ( $\text{g g}^{-1} \text{ DW}$ )		Sub-surface soil to indoor air correction factor (dimensionless)		Relative bioavailability via soil ingestion (unitless)		Relative bioavailability via dust inhalation (unitless)
1	Arsenic	ID	0.3	ID	0.002	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	0.03	0.33	1	1	1	1	1	1	
2	Cadmium	TDI	0.36	TDI	0.0014	13.4	0.02	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	0.001	0.33	1	1	1	1	1	1	
3	Mercury, inorganic	TDI	2	TDI	0.06	1	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	0	0.33	1	1	1	1	1	1	
4	Nickel	TDI	12	TDI	0.006	130	0.06	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	0.005	0.33	1	1	1	1	1	1	
5	Selenium	TDI	6.4	NR	0	35	0.06	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	0	0.33	1	1	1	1	1	1	
6	Chromium III	TDI	150	TDI	0.1	60.2	0.27	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	0	0.33	0	1	1	1	1	1	
7	Copper	TDI	160	TDI	0.286	7000	0.68	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	0	0.33	0	1	1	1	1	1	
8	Zinc	TDI	600	TDI	600	27000	2.4	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	0	0.33	0	1	1	1	1	1	
9	Acenaphthene	TDI	60	TDI	60	0.98	0.025	7.59E-04	5.85E-06	4.70E-10	3.37	4.03	0.13	0.33	1	1	1	1	1	0.13	0.33	1	1	1	1	1	1	
10	Acenaphylene	TDI	60	TDI	60	0.14	0.011	5.68E-04	5.97E-06	4.82E-10	3.26	3.91	0.13	0.33	1	1	1	1	1	0.13	0.33	1	1	1	1	1	1	
11	Anthracene	TDI	300	TDI	300	0.08	0.041	1.81E-04	5.36E-06	4.36E-10	3.75	4.5	0.13	0.33	1	1	1	1	1	0.13	0.33	1	1	1	1	1	1	
12	Benz(a)anthracene	ID	0.138	ID	0.00048	0.06	0.011	3.16E-05	4.60E-06	3.80E-10	4.89	5.91	0.13	0.33	1	1	1	1	1	0.13	0.33	1	1	1	1	1	1	
13	Benzo(a)pyrene	ID	0.02	ID	0.00007	0.11	0.006	1.76E-06	4.38E-06	3.67E-10	5.11	6.18	0.13	0.33	1	1	1	1	1	0.13	0.33	1	1	1	1	1	1	
14	Benzo(b)fluoranthene	ID	0.142	ID	0.0005	0.11	0.013	2.05E-06	4.38E-06	3.62E-10	5.02	6.08	0.13	0.33	1	1	1	1	1	0.13	0.33	1	1	1	1	1	1	
15	Benzo(ghi)perylene	ID	0.909	ID	0.0032	0.06	0.01	2.86E-06	4.22E-06	3.56E-10	5.62	6.81	0.13	0.33	1	1	1	1	1	0.13	0.33	1	1	1	1	1	1	
16	Benzo(k)fluoranthene	ID	0.2	ID	0.0007	0.09	0.007	1.74E-06	4.36E-06	3.62E-10	5.17	6.26	0.13	0.33	1	1	1	1	1	0.13	0.33	1	1	1	1	1	1	
17	Chrysene	ID	0.2	ID	0.0007	0.11	0.017	3.18E-06	4.57E-06	3.77E-10	4.74	5.73	0.13	0.33	1	1	1	1	1	0.13	0.33	1	1	1	1	1	1	
18	Dibenz(ah)anthracene	ID	0.018	ID	0.000063	0.04	0.003	5.40E-06	4.08E-06	3.40E-10	5.27	6.38	0.13	0.33	1	1	1	1	1	0.13	0.33	1	1	1	1	1	1	
19	Fluoranthene	TDI	12.5	TDI	12.5	0.35	0.084	6.29E-05	5.01E-06	4.11E-10	4.26	5.13	0.13	0.33	1	1	1	1	1	0.13	0.33	1	1	1	1	1	1	
20	Fluorene	TDI	40	TDI	40	0.59	0.096	4.12E-04	5.58E-06	4.47E-10	3.45	4.13	0.13	0.33	1	1	1	1	1	0.13	0.33	1	1	1	1	1	1	



		Oral Health Criteria Value ( $\mu\text{g kg}^{-1} \text{ BW day}^{-1}$ )		Inhalation Health Criteria Value ( $\mu\text{g kg}^{-1} \text{ BW day}^{-1}$ )		Oral Mean Daily Intake ( $\mu\text{g day}^{-1}$ )		Inhalation Mean Daily Intake ( $\mu\text{g day}^{-1}$ )		Air-water partition coefficient ( $K_{aw}$ ) ( $\text{cm}^3 \text{ cm}^{-3}$ )		Coefficient of Diffusion in Air ( $\text{m}^2 \text{ s}^{-1}$ )		Coefficient of Diffusion in Water ( $\text{m}^2 \text{ s}^{-1}$ )		$\log K_{oc}$ ( $\text{cm}^2 \text{ g}^{-1}$ )		$\log K_{ow}$ (dimensionless)		Dermal Absorption Fraction (dimensionless)		Soil-to-dust transport factor ( $\text{g g}^{-1} \text{ DW}$ )		Sub-surface soil to indoor air correction factor (dimensionless)		Relative bioavailability via soil ingestion (unitless)		Relative bioavailability via dust inhalation (unitless)
21	Indeno(123-cd)pyrene	ID	0.086	ID	0.0003	0.1	0.009	2.05E-06	4.17E-06	3.51E-10	4.94	5.97	0.13	0.33	1	1	1	1	1	0.13	0.33	1	1	1	1	1	1	1
22	Naphthalene	TDI	20	TDI	0.86	7	2.8	6.62E-03	6.52E-06	5.16E-10	2.81	3.34	0.13	0.33	1	1	1	1	1	0.13	0.33	1	1	1	1	1	1	1
23	Phenanthrene	TDI	12.5	TDI	12.5	1.54	0.518	1.43E-04	5.34E-06	4.32E-10	3.74	4.5	0.13	0.33	1	1	1	1	1	0.13	0.33	1	1	1	1	1	1	1
24	Pyrene	TDI	30	TDI	30	0.35	0.065	5.64E-05	5.01E-06	4.15E-10	4.21	5.08	0.13	0.33	1	1	1	1	1	0.13	0.33	1	1	1	1	1	1	1
25	Phenol	TDI	700	TDI	10	350	40	8.35E-06	7.90E-06	6.36E-10	1.9	1.48	0.3	0.33	1	1	1	1	1	0.3	0.33	1	1	1	1	1	1	1
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Environment Agency		Soil-to-water partition coefficient (cm <sup>3</sup> g <sup>-1</sup> )	Vapour pressure (Pa)	Water solubility (mg L <sup>-1</sup> )	Soil-to-plant concentration factor for green vegetables (mg g <sup>-1</sup> plant DW or FW basis over mg g <sup>-1</sup> DW soil)	Soil-to-plant concentration factor for root vegetables (mg g <sup>-1</sup> plant DW or FW basis over mg g <sup>-1</sup> DW soil)	Soil-to-plant concentration factor for tuber vegetables (mg g <sup>-1</sup> plant DW or FW basis over mg g <sup>-1</sup> DW soil)	Soil-to-plant concentration factor for herbaceous fruit (mg g <sup>-1</sup> plant DW or FW basis over mg g <sup>-1</sup> DW soil)	Soil-to-plant concentration factor for shrub fruit (mg g <sup>-1</sup> plant DW or FW basis over mg g <sup>-1</sup> DW soil)	Soil-to-plant concentration factor for tree fruit (mg g <sup>-1</sup> plant DW or FW basis over mg g <sup>-1</sup> DW soil)
1	Arsenic	5.00E+02	NR	1.25E+06	0.00043 fw	0.0004 fw	0.00023 fw	0.00033 fw	0.0002 fw	0.0011 fw
2	Cadmium	1.00E+02	NR	1.62E+06	0.052 fw	0.029 fw	0.031 fw	0.016 fw	0.0031 fw	0.0014 fw
3	Mercury, inorganic	5.00E+02	NR	7.40E+04	0.0038 fw	0.0069 fw	0.0043 fw	0.001 fw	0.0011 fw	0.001 fw
4	Nickel	5.00E+02	NR	2.50E+06	0.0038 fw	0.0043 fw	0.0019 fw	0.0025 fw	0.0025 fw	0.0034 fw
5	Selenium	5.00E+01	NR	2.17E+06	0.0108 fw	0.00364 fw	0.00083 fw	0.00271 fw	0.003 fw	0.003 fw
6	Chromium III	4.80E+03	NR	5.85E+05	0.00003 fw	0.00003 fw	0.00003 fw	0.00003 fw	0.00003 fw	0.00003 fw
7	Copper	1.00E+02	NR	1.38E+06	0.0206 fw	0.0206 fw	0.0206 fw	0.0233 fw	0.0206 fw	0.0206 fw
8	Zinc	3.80E+01	NR	4.32E+08	0.054 fw	0.054 fw	0.054 fw	0.143 fw	0.054 fw	0.054 fw
9	Acenaphthene	6.80E+01	7.37E-02	4.11E+00	model	model	model	model	model	model
10	Acenaphylene	5.28E+01	7.08E-02	7.95E+00	model	model	model	model	model	model
11	Anthracene	1.63E+02	8.49E-05	5.60E-02	model	model	model	model	model	model
12	Benz(a)anthracene	2.25E+03	1.24E-06	3.80E-03	model	model	model	model	model	model
13	Benzo(a)pyrene	3.74E+03	2.00E-08	3.80E-03	model	model	model	model	model	model
14	Benzo(b)fluoranthene	3.04E+03	6.34E-08	2.00E-03	model	model	model	model	model	model
15	Benzo(ghi)perylene	1.21E+04	1.55E-10	2.60E-04	model	model	model	model	model	model
16	Benzo(k)fluoranthene	4.29E+03	1.64E-08	8.00E-04	model	model	model	model	model	model
17	Chrysene	1.59E+03	4.52E-08	2.00E-03	model	model	model	model	model	model
18	Dibenz(ah)anthracene	5.40E+03	1.66E-10	6.00E-04	model	model	model	model	model	model
19	Fluoranthene	5.28E+02	1.31E-04	2.30E-01	model	model	model	model	model	model
20	Fluorene	8.17E+01	1.56E-02	1.86E+00	model	model	model	model	model	model



		Soil-to-water partition coefficient (cm <sup>3</sup> g <sup>-1</sup> )	Vapour pressure (Pa)	Water solubility (mg L <sup>-1</sup> )	Soil-to-plant concentration factor for green vegetables (mg g <sup>-1</sup> plant DW or FW basis over mg g <sup>-1</sup> DW soil)	Soil-to-plant concentration factor for root vegetables (mg g <sup>-1</sup> plant DW or FW basis over mg g <sup>-1</sup> DW soil)	Soil-to-plant concentration factor for tuber vegetables (mg g <sup>-1</sup> plant DW or FW basis over mg g <sup>-1</sup> DW soil)	Soil-to-plant concentration factor for herbaceous fruit (mg g <sup>-1</sup> plant DW or FW basis over mg g <sup>-1</sup> DW soil)	Soil-to-plant concentration factor for shrub fruit (mg g <sup>-1</sup> plant DW or FW basis over mg g <sup>-1</sup> DW soil)	Soil-to-plant concentration factor for tree fruit (mg g <sup>-1</sup> plant DW or FW basis over mg g <sup>-1</sup> DW soil)
21	Indeno(123-cd)pyrene	2.53E+03	2.12E-09	2.00E-04	model	model	model	model	model	model
22	Naphthalene	1.87E+01	2.31E+00	1.90E+01	model	model	model	model	model	model
23	Phenanthrene	1.59E+02	2.82E-03	1.12E+00	model	model	model	model	model	model
24	Pyrene	4.70E+02	1.53E-05	1.30E-01	model	model	model	model	model	model
25	Phenol	2.41E+00	1.15E+01	8.41E+04	model	model	model	0.00E+00	0.00E+00	model
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**CLEA Software Version 1.06**

Report generated 24/11/2011

Report title St. Mary's Park, Limerick

Created by D Brooks at Verde



**BASIC SETTINGS**

Land Use	Residential without homegrown produce	Start age class	1	End age class	6	Exposure Duration	6 years
Building	Small terraced house						
Receptor	Female (res)						
Soil	Sandy loam						
<b>Exposure Pathways</b>							
	Direct soil and dust ingestion		<input checked="" type="checkbox"/>				
	Consumption of homegrown produce		<input checked="" type="checkbox"/>				
	Soil attached to homegrown produce		<input checked="" type="checkbox"/>				
	Dermal contact with indoor dust						<input checked="" type="checkbox"/>
	Dermal contact with soil						<input checked="" type="checkbox"/>
							<input checked="" type="checkbox"/>
							<input checked="" type="checkbox"/>

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Land Use Residential without homegrown produce

Age Class	Exposure Frequencies (days yr <sup>-1</sup> )						Occupation Periods (hr day <sup>-1</sup> )		Soil to skin adherence factors (mg cm <sup>2</sup> )		Direct soil ingestion rate (g day <sup>-1</sup> )
	Direct soil ingestion	Consumption of homegrown produce	Dermal contact with indoor dust	Dermal contact with soil	Inhalation of dust and vapour, indoor	Inhalation of dust and vapour, outdoor	Indoors	Outdoors	Indoor	Outdoor	
1	43	180	180	26	365	365	23.0	1.0	0.06	1.00	0.10
2	86	365	365	52	365	365	23.0	1.0	0.06	1.00	0.10
3	86	365	365	52	365	365	23.0	1.0	0.06	1.00	0.10
4	86	365	365	52	365	365	23.0	1.0	0.06	1.00	0.10
5	86	365	365	52	365	365	19.0	1.0	0.06	1.00	0.10
6	86	365	365	52	365	365	19.0	1.0	0.06	1.00	0.10
7	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00
8	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00
9	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00
10	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00
11	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00
12	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00
13	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00
14	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00
15	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00
16	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00
17	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00
18	0	0	0	0	0	0	0.0	0.0	0.00	0.00	0.00

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Receptor Female (res)

Age Class	Body weight (kg)	Body height (m)	Inhalation rate (m <sup>3</sup> day <sup>-1</sup> )	Max exposed skin factor		Consumption rates (g FW kg <sup>-1</sup> BW day <sup>-1</sup> )						
				Indoor (m <sup>2</sup> m <sup>-2</sup> )	Outdoor (m <sup>2</sup> m <sup>-2</sup> )	Total skin area (m <sup>2</sup> )	Green vegetables	Root vegetables	Tuber vegetables	Herbaceous fruit	Shrub fruit	Tree fruit
1	5.60	0.7	8.5	0.32	0.26	3.43E-01	7.12	10.69	16.03	1.83	2.23	3.82
2	9.80	0.8	13.3	0.33	0.26	4.84E-01	6.85	3.30	5.46	3.96	0.54	11.96
3	12.70	0.9	12.7	0.32	0.25	5.82E-01	6.85	3.30	5.46	3.96	0.54	11.96
4	15.10	0.9	12.2	0.35	0.28	6.36E-01	6.85	3.30	5.46	3.96	0.54	11.96
5	16.90	1.0	12.2	0.35	0.28	7.04E-01	3.74	1.77	3.38	1.85	0.16	4.26
6	19.70	1.1	12.2	0.33	0.26	7.94E-01	3.74	1.77	3.38	1.85	0.16	4.26
7	22.10	1.2	12.4	0.22	0.15	8.73E-01	3.74	1.77	3.38	1.85	0.16	4.26
8	25.30	1.2	12.4	0.22	0.15	9.36E-01	3.74	1.77	3.38	1.85	0.16	4.26
9	27.50	1.3	12.4	0.22	0.15	1.01E+00	3.74	1.77	3.38	1.85	0.16	4.26
10	31.40	1.3	12.4	0.22	0.15	1.08E+00	3.74	1.77	3.38	1.85	0.16	4.26
11	35.70	1.4	12.4	0.22	0.14	1.19E+00	3.74	1.77	3.38	1.85	0.16	4.26
12	41.30	1.4	13.4	0.22	0.14	1.29E+00	3.74	1.77	3.38	1.85	0.16	4.26
13	47.20	1.5	13.4	0.22	0.14	1.42E+00	3.74	1.77	3.38	1.85	0.16	4.26
14	51.20	1.6	13.4	0.22	0.14	1.52E+00	3.74	1.77	3.38	1.85	0.16	4.26
15	56.70	1.6	13.4	0.21	0.14	1.60E+00	3.74	1.77	3.38	1.85	0.16	4.26
16	59.00	1.6	13.4	0.21	0.14	1.63E+00	3.74	1.77	3.38	1.85	0.16	4.26
17	70.00	1.6	14.8	0.33	0.27	1.78E+00	2.94	1.40	1.79	1.61	0.22	2.97
18	70.90	1.6	12.0	0.33	0.27	1.80E+00	2.94	1.40	1.79	1.61	0.22	2.97

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**Building Small terraced house**

**Soil Sandy loam**

Building footprint (m <sup>2</sup> )	2.80E+01	Porosity, Total (cm <sup>3</sup> cm <sup>-3</sup> )	5.30E-01
Living space air exchange rate (hr <sup>-1</sup> )	5.00E-01	Porosity, Air-Filled (cm <sup>3</sup> cm <sup>-3</sup> )	2.00E-01
Living space height (above ground, m)	4.80E+00	Porosity, Water-Filled (cm <sup>3</sup> cm <sup>-3</sup> )	3.30E-01
Living space height (below ground, m)	0.00E+00	Residual soil water content (cm <sup>3</sup> cm <sup>-3</sup> )	1.20E-01
Pressure difference (soil to enclosed space, Pa)	3.10E+00	Saturated hydraulic conductivity (cm s <sup>-1</sup> )	3.56E-03
Foundation thickness (m)	1.50E-01	van Genuchten shape parameter <i>m</i> (dimensionless)	3.20E-01
Floor crack area (cm <sup>2</sup> )	4.23E+02	Bulk density (g cm <sup>-3</sup> )	1.21E+00
Dust loading factor (µg m <sup>-3</sup> )	5.00E+01	Threshold value of wind speed at 10m (m s <sup>-1</sup> )	7.20E+00
		Empirical function <i>F<sub>d</sub></i> for dust model (dimensionless)	1.22E+00
		Ambient soil temperature (K)	2.83E+02
		Soil pH	7.00E+00
		Soil Organic Matter content (%)	5.00E+00
		Fraction of organic carbon (g g <sup>-1</sup> )	2.90E-02
		Effective total fluid saturation (unitless)	5.12E-01
		Intrinsic soil permeability (cm <sup>2</sup> )	4.75E-08
		Relative soil air permeability (unitless)	6.42E-01
		Effective air permeability (cm <sup>2</sup> )	3.05E-08

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**Soil - Vapour Model**

**Air Dispersion Model**

Depth to top of source (no building) (cm)	0	Mean annual windspeed at 10m (m s <sup>-1</sup> )	5.00
Depth to top of source (beneath building) (cm)	65	Air dispersion factor at height of 0.8m *	2400.00
Default soil gas ingress rate?	Yes	Air dispersion factor at height of 1.6m *	0.00
Soil gas ingress rate (cm <sup>3</sup> s <sup>-1</sup> )	2.50E+01	Fraction of site cover (m <sup>2</sup> m <sup>-2</sup> )	0
Building ventilation rate (cm <sup>3</sup> s <sup>-1</sup> )	1.87E+04	Air dispersion factor in g m <sup>-2</sup> s <sup>-1</sup> per kg m <sup>3</sup>	
Averaging time surface emissions (yr)	6		
Finite vapour source model?	No		
Thickness of contaminated layer (cm)	200		

**Soil - Plant Model**

	Dry weight conversion factor		Homegrown fraction		Soil loading factor	Preparation correction factor
	g DW g <sup>-1</sup> FW		Average	High		
Green vegetables	0.096	dimensionless	0.05	0.33	g g <sup>-1</sup> DW	dimensionless
Root vegetables	0.103	0.06	0.06	0.40	1.00E-03	2.00E-01
Tuber vegetables	0.210	0.02	0.02	0.13	1.00E-03	1.00E+00
Herbaceous fruit	0.058	0.06	0.06	0.40	1.00E-03	1.00E+00
Shrub fruit	0.166	0.09	0.09	0.60	1.00E-03	6.00E-01
Tree fruit	0.157	0.04	0.04	0.27	1.00E-03	6.00E-01

Gardener type: Average

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CLEA Software Version 1.06

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Report generated 24-Nov-11

Report title St. Mary's Park, Limerick

Created by D Brooks at Verde



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**RESULTS**

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		Assessment Criterion (mg kg <sup>-1</sup> )			Ratio of ADE to HCV			Saturation Limit (mg kg <sup>-1</sup> )	50% rule?	
		oral	inhalation	combined	oral	inhalation	combined		Oral	Inhal
1	Benzene	1.22E+02	8.84E-01	8.78E-01	0.01	0.99	1.00	4.01E+03 (sol)	No	No
2	Ethylbenzene	4.21E+04	7.79E+02	7.65E+02	0.02	0.98	1.00	2.38E+03 (vap)	No	No
3	Toluene	9.39E+04	2.63E+03	2.56E+03	0.03	0.97	1.00	3.66E+03 (vap)	No	No
4	Xylene, o-	7.58E+04	2.74E+02	2.73E+02	0.00	1.00	1.00	2.19E+03 (sol)	No	No
5	Xylene, m-	7.58E+04	2.57E+02	2.56E+02	0.00	1.00	1.00	2.89E+03 (vap)	No	No
6	Xylene, p-	7.58E+04	2.46E+02	2.45E+02	0.00	1.00	1.00	2.65E+03 (sol)	No	No
7	TPH aliphatic EC5-EC6	1.06E+06	9.29E+01	9.29E+01	0.00	1.00	1.00	9.81E+02 (sol)	Yes	Yes
8	TPH aliphatic >EC6-EC8	1.06E+06	3.01E+02	3.01E+02	0.00	1.00	1.00	6.18E+02 (sol)	Yes	Yes
9	TPH aliphatic >EC8-EC10	2.11E+04	8.81E+01	8.80E+01	0.00	1.00	1.00	3.76E+02 (vap)	Yes	Yes
10	TPH aliphatic >EC10-EC12	2.11E+04	4.48E+02	4.46E+02	0.01	0.99	1.00	2.36E+02 (vap)	Yes	Yes
11	TPH aliphatic >EC12-EC16	2.11E+04	3.77E+03	3.59E+03	0.09	0.91	1.00	1.18E+02 (sol)	Yes	Yes
12	TPH aliphatic >EC16-EC35	2.16E+05	NR	NR	1.00	NR	NR	4.24E+01 (sol)	Yes	No
13	TPH aromatic >EC5-EC7	9.41E+04	8.77E+02	8.68E+02	0.01	0.99	1.00	4.01E+03 (sol)	No	No
14	TPH aromatic >EC7-EC8	9.39E+04	2.63E+03	2.56E+03	0.03	0.97	1.00	3.66E+03 (vap)	No	No
15	TPH aromatic >EC8-EC10	8.45E+03	1.57E+02	1.56E+02	0.01	0.99	1.00	2.99E+03 (vap)	Yes	Yes
16	TPH aromatic >EC10-EC12	8.45E+03	8.63E+02	8.40E+02	0.05	0.95	1.00	1.79E+03 (sol)	Yes	Yes
17	TPH aromatic >EC12-EC16	8.45E+03	9.56E+03	5.97E+03	0.55	0.45	1.00	8.37E+02 (sol)	Yes	Yes
18	TPH aromatic >EC16-EC21	6.07E+03	NR	NR	1.00	NR	NR	2.68E+02 (sol)	Yes	No
19	TPH aromatic >EC21-EC35	6.29E+03	NR	NR	1.00	NR	NR	2.41E+01 (sol)	Yes	No
20										



	Assessment Criterion (mg kg <sup>-1</sup> )			Ratio of ADE to HCV			Saturation Limit (mg kg <sup>-1</sup> )	50% rule?	
	oral	inhalation	combined	oral	inhalation	combined		Oral	Inhal
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		Soil Distribution				Media Concentrations													
		Sorbed	Dissolved	Vapour	Total	Soil	Soil gas	Indoor Dust	Outdoor dust at 0.8m	Outdoor dust at 1.6m	Indoor Vapour	Outdoor vapour at 0.8m	Outdoor vapour at 1.6m	Green vegetables	Root vegetables	Tuber vegetables	Herbaceous fruit	Shrub fruit	Tree fruit
		%	%	%	%	mg kg <sup>-1</sup>	mg m <sup>-3</sup>	mg kg <sup>-1</sup>	mg m <sup>-3</sup>	mg m <sup>-3</sup>	mg m <sup>-3</sup>	mg m <sup>-3</sup>	mg m <sup>-3</sup>	mg kg <sup>-1</sup> FW	mg kg <sup>-1</sup> FW	mg kg <sup>-1</sup> FW	mg kg <sup>-1</sup> FW	mg kg <sup>-1</sup> FW	mg kg <sup>-1</sup> FW
1	Benzene	87.0	12.1	0.9	100.0	8.78E-01	4.52E+01	2.90E-01	1.49E-09	0.00E+00	1.50E-03	2.88E-06	0.00E+00	NA	NA	NA	NA	NA	NA
2	Ethylbenzene	97.8	2.1	0.2	100.0	7.65E+02	8.03E+03	2.53E+02	1.30E-06	0.00E+00	2.25E-01	1.01E-03	0.00E+00	NA	NA	NA	NA	NA	NA
3	Toluene	95.3	4.4	0.3	100.0	2.56E+03	4.74E+04	8.46E+02	4.36E-06	0.00E+00	1.44E+00	4.74E-03	0.00E+00	NA	NA	NA	NA	NA	NA
4	Xylene, o-	97.7	2.2	0.1	100.0	2.73E+02	1.98E+03	9.00E+01	4.64E-07	0.00E+00	5.55E-02	3.00E-04	0.00E+00	NA	NA	NA	NA	NA	NA
5	Xylene, m-	98.0	1.9	0.1	100.0	2.56E+02	1.98E+03	8.46E+01	4.36E-07	0.00E+00	5.55E-02	2.98E-04	0.00E+00	NA	NA	NA	NA	NA	NA
6	Xylene, p-	97.8	2.1	0.1	100.0	2.45E+02	1.98E+03	8.08E+01	4.17E-07	0.00E+00	5.55E-02	2.85E-04	0.00E+00	NA	NA	NA	NA	NA	NA
7	TPH aliphatic >EC5-EC6	86.3	1.0	12.7	100.0	9.29E+01	7.14E+04	3.07E+01	1.58E-07	0.00E+00	2.70E+00	1.28E-03	0.00E+00	NA	NA	NA	NA	NA	NA
8	TPH aliphatic >EC6-EC8	95.8	0.2	3.9	100.0	3.01E+02	7.14E+04	9.93E+01	5.12E-07	0.00E+00	2.70E+00	2.31E-03	0.00E+00	NA	NA	NA	NA	NA	NA
9	TPH aliphatic >EC8-EC10	99.2	0.0	0.8	100.0	8.80E+01	4.14E+03	2.91E+01	1.50E-07	0.00E+00	1.57E-01	3.01E-04	0.00E+00	NA	NA	NA	NA	NA	NA
10	TPH aliphatic >EC10-EC12	99.8	0.0	0.2	100.0	4.46E+02	4.12E+03	1.47E+02	7.59E-07	0.00E+00	1.56E-01	6.76E-04	0.00E+00	NA	NA	NA	NA	NA	NA
11	TPH aliphatic >EC12-EC16	100.0	0.0	0.0	100.0	3.59E+03	3.94E+03	1.18E+03	6.10E-06	0.00E+00	1.49E-01	1.87E-03	0.00E+00	NA	NA	NA	NA	NA	NA
12	TPH aliphatic >EC16-EC35	100.0	0.0	0.0	100.0	2.16E+05	1.38E+04	7.12E+04	3.67E-04	0.00E+00	5.24E-01	2.72E-02	0.00E+00	NA	NA	NA	NA	NA	NA
13	TPH aromatic >EC5-EC7	87.0	12.1	0.9	100.0	8.68E+02	4.47E+04	2.87E+02	1.48E-06	0.00E+00	1.49E+00	2.84E-03	0.00E+00	NA	NA	NA	NA	NA	NA
14	TPH aromatic >EC7-EC8	95.3	4.4	0.3	100.0	2.56E+03	4.74E+04	8.46E+02	4.36E-06	0.00E+00	1.44E+00	4.74E-03	0.00E+00	NA	NA	NA	NA	NA	NA
15	TPH aromatic >EC8-EC10	99.3	0.6	0.1	100.0	1.56E+02	8.52E+02	5.14E+01	2.65E-07	0.00E+00	3.23E-02	1.82E-04	0.00E+00	NA	NA	NA	NA	NA	NA
16	TPH aromatic >EC10-EC12	99.6	0.4	0.0	100.0	8.40E+02	8.29E+02	2.77E+02	1.43E-06	0.00E+00	3.15E-02	4.17E-04	0.00E+00	NA	NA	NA	NA	NA	NA
17	TPH aromatic >EC12-EC16	99.8	0.2	0.0	100.0	5.97E+03	5.16E+02	1.97E+03	1.02E-05	0.00E+00	2.01E-02	8.93E-04	0.00E+00	NA	NA	NA	NA	NA	NA
18	TPH aromatic >EC16-EC21	99.9	0.1	0.0	100.0	6.07E+03	1.03E+01	2.00E+03	1.03E-05	0.00E+00	5.58E-04	1.64E-04	0.00E+00	NA	NA	NA	NA	NA	NA
19	TPH aromatic >EC21-EC35	100.0	0.0	0.0	100.0	6.29E+03	4.27E-02	2.07E+03	1.07E-05	0.00E+00	5.11E-06	3.77E-05	0.00E+00	NA	NA	NA	NA	NA	NA
20																			



	Soil Distribution				Media Concentrations														
	Sorbed	Dissolved	Vapour	Total	Soil	Soil gas	Indoor Dust	Outdoor dust at 0.8m	Outdoor dust at 1.6m	Indoor Vapour	Outdoor vapour at 0.8m	Outdoor vapour at 1.6m	Green vegetables	Root vegetables	Tuber vegetables	Herbaceous fruit	Shrub fruit	Tree fruit	
	%	%	%	%	mg kg <sup>-1</sup>	mg m <sup>-3</sup>	mg kg <sup>-1</sup>	mg m <sup>-3</sup>	mg m <sup>-3</sup>	mg m <sup>-3</sup>	mg m <sup>-3</sup>	mg m <sup>-3</sup>	mg kg <sup>-1</sup> FW	mg kg <sup>-1</sup> FW	mg kg <sup>-1</sup> FW	mg kg <sup>-1</sup> FW	mg kg <sup>-1</sup> FW	mg kg <sup>-1</sup> FW	
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		Average Daily Exposure (mg kg <sup>-1</sup> bw day <sup>-1</sup> )							Distribution by Pathway (%)							
		Direct soil ingestion	Consumption of homegrown produce and attached soil	Dermal contact with soil and dust	Inhalation of dust	Inhalation of vapour	Background (oral)	Background (inhalation)	Direct soil ingestion	Consumption of homegrown produce and attached soil	Dermal contact with soil and dust	Inhalation of dust	Inhalation of vapour (indoor)	Inhalation of vapour (outdoor)	Background (oral)	Background (inhalation)
1	Benzene	1.54E-06	0.00E+00	5.40E-07	1.48E-08	1.39E-03	0.00E+00	0.00E+00	0.11	0.00	0.04	0.00	99.84	0.01	0.00	0.00
2	Ethylbenzene	1.34E-03	0.00E+00	4.71E-04	1.29E-05	2.08E-01	2.81E-04	7.88E-03	0.61	0.00	0.22	0.01	95.40	0.02	0.13	3.61
3	Toluene	4.49E-03	0.00E+00	1.58E-03	4.33E-05	1.33E+00	5.63E-04	3.15E-02	0.33	0.00	0.12	0.00	97.20	0.01	0.04	2.30
4	Xylene, o-	4.78E-04	0.00E+00	1.68E-04	4.61E-06	5.13E-02	6.19E-04	8.49E-03	0.78	0.00	0.27	0.01	84.01	0.02	1.01	13.89
5	Xylene, m-	4.49E-04	0.00E+00	1.58E-04	4.33E-06	5.13E-02	6.19E-04	8.49E-03	0.74	0.00	0.26	0.01	84.08	0.02	0.99	13.90
6	Xylene, p-	4.29E-04	0.00E+00	1.51E-04	4.14E-06	5.13E-02	6.19E-04	8.49E-03	0.70	0.00	0.25	0.01	84.16	0.02	0.95	13.91
7	TPH aliphatic >EC5-EC6	1.63E-04	0.00E+00	5.72E-05	1.57E-06	2.50E+00	5.62E+95	6.06E+95	0.00	0.00	0.00	0.00	49.99	0.00	0.00	50.00
8	TPH aliphatic >EC6-EC8	5.27E-04	0.00E+00	1.85E-04	5.09E-06	2.50E+00	5.62E+95	6.06E+95	0.01	0.00	0.00	0.00	49.98	0.00	0.01	49.99
9	TPH aliphatic >EC8-EC10	1.54E-04	0.00E+00	5.42E-05	1.49E-06	1.45E-01	5.62E+95	6.06E+95	0.05	0.00	0.02	0.00	49.92	0.00	0.07	49.93
10	TPH aliphatic >EC10-EC12	7.81E-04	0.00E+00	2.74E-04	7.54E-06	1.44E-01	5.62E+95	6.06E+95	0.27	0.00	0.09	0.00	49.62	0.01	0.36	49.64
11	TPH aliphatic >EC12-EC16	6.28E-03	0.00E+00	2.21E-03	6.06E-05	1.38E-01	5.62E+95	6.06E+95	2.15	0.00	0.75	0.02	47.05	0.03	2.90	47.10
12	TPH aliphatic >EC16-EC35	3.78E-01	0.00E+00	1.33E-01	3.65E-03	4.85E-01	5.62E+95	0.00E+00	18.91	0.00	6.64	0.18	24.21	0.06	50.00	0.00
13	TPH aromatic >EC5-EC7	1.52E-03	0.00E+00	5.35E-04	1.47E-05	1.38E+00	1.69E-04	1.21E-02	0.11	0.00	0.04	0.00	98.96	0.01	0.01	0.87
14	TPH aromatic >EC7-EC8	4.49E-03	0.00E+00	1.58E-03	4.33E-05	1.33E+00	5.63E-04	3.15E-02	0.33	0.00	0.12	0.00	97.20	0.01	0.04	2.30
15	TPH aromatic >EC8-EC10	2.73E-04	0.00E+00	9.59E-05	2.63E-06	2.99E-02	5.62E+95	6.06E+95	0.45	0.00	0.16	0.00	49.37	0.01	0.61	49.39
16	TPH aromatic >EC10-EC12	1.47E-03	0.00E+00	5.17E-04	1.42E-05	2.92E-02	5.62E+95	6.06E+95	2.36	0.00	0.83	0.02	46.76	0.03	3.19	46.81
17	TPH aromatic >EC12-EC16	1.05E-02	0.00E+00	3.67E-03	1.01E-04	1.86E-02	5.62E+95	6.06E+95	15.91	0.00	5.59	0.15	28.29	0.06	21.50	28.50
18	TPH aromatic >EC16-EC21	1.06E-02	0.00E+00	3.74E-03	1.03E-04	5.23E-04	5.62E+95	0.00E+00	35.46	0.00	12.46	0.34	1.72	0.02	50.00	0.00
19	TPH aromatic >EC21-EC35	1.10E-02	0.00E+00	3.87E-03	1.06E-04	6.31E-06	5.62E+95	0.00E+00	36.72	0.00	12.90	0.35	0.02	0.01	50.00	0.00
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	Average Daily Exposure (mg kg <sup>-1</sup> bw day <sup>-1</sup> )							Distribution by Pathway (%)							
	Direct soil ingestion	Consumption of homegrown produce and attached soil	Dermal contact with soil and dust	Inhalation of dust	Inhalation of vapour	Background (oral)	Background (inhalation)	Direct soil ingestion	Consumption of homegrown produce	Dermal contact with soil and dust	Inhalation of dust	Inhalation of vapour (indoor)	Inhalation of vapour (outdoor)	Background (oral)	Background (inhalation)
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		Oral Health Criteria Value ( $\mu\text{g kg}^{-1} \text{ BW day}^{-1}$ )		Inhalation Health Criteria Value ( $\mu\text{g kg}^{-1} \text{ BW day}^{-1}$ )		Oral Mean Daily Intake ( $\mu\text{g day}^{-1}$ )	Inhalation Mean Daily Intake ( $\mu\text{g day}^{-1}$ )	Air-water partition coefficient ( $K_{aw}$ ) ( $\text{cm}^3 \text{ cm}^{-3}$ )	Coefficient of Diffusion in Air ( $\text{m}^2 \text{ s}^{-1}$ )	Coefficient of Diffusion in Water ( $\text{m}^2 \text{ s}^{-1}$ )	$\log K_{oc}$ ( $\text{cm}^3 \text{ g}^{-1}$ )	$\log K_{ow}$ (dimensionless)	Dermal Absorption Fraction (dimensionless)	Soil-to-dust transport factor ( $\text{g g}^{-1} \text{ DW}$ )	Sub-surface soil to indoor air correction factor (dimensionless)	Relative bioavailability via soil ingestion (unitless)	Relative bioavailability via dust inhalation (unitless)
1	Benzene	ID	0.29	ID	1.4	NR	NR	1.16E-01	8.77E-06	6.64E-10	1.83	2.13	0.1	0.33	10	1	1
2	Ethylbenzene	TDI	100	TDI	220	5	130	1.39E-01	7.04E-06	5.31E-10	2.65	3.15	0.1	0.33	10	1	1
3	Toluene	TDI	223	TDI	1400	10	520	1.15E-01	7.78E-06	5.88E-10	2.31	2.73	0.1	0.33	10	1	1
4	Xylene, o-	TDI	180	TDI	60	11	140	9.20E-02	7.01E-06	5.31E-10	2.63	3.12	0.1	0.33	10	1	1
5	Xylene, m-	TDI	180	TDI	60	11	140	1.12E-01	7.03E-06	5.31E-10	2.65	3.2	0.1	0.33	10	1	1
6	Xylene, p-	TDI	180	TDI	60	11	140	1.07E-01	7.04E-06	5.31E-10	2.65	3.15	0.1	0.33	10	1	1
7	TPH aliphatic EC5-EC6	TDI	5000	TDI	5000	9.99E+99	9.99E+99	2.10E+01	1.05E-05	1.00E-09	2.91	3.31	0.1	0.33	10	1	1
8	TPH aliphatic >EC6-EC8	TDI	5000	TDI	5000	9.99E+99	9.99E+99	2.73E+01	1.05E-05	1.00E-09	3.58	4.13	0.1	0.33	10	1	1
9	TPH aliphatic >EC8-EC10	TDI	100	TDI	290	9.99E+99	9.99E+99	4.15E+01	1.05E-05	1.00E-09	4.48	5.22	0.1	0.33	10	1	1
10	TPH aliphatic >EC10-EC12	TDI	100	TDI	290	9.99E+99	9.99E+99	6.44E+01	1.05E-05	1.00E-09	5.38	6.3	0.1	0.33	10	1	1
11	TPH aliphatic >EC12-EC16	TDI	100	TDI	290	9.99E+99	9.99E+99	1.71E+02	1.05E-05	1.00E-09	6.73	7.94	0.1	0.33	10	1	1
12	TPH aliphatic >EC16-EC35	TDI	2000	NR	0	9.99E+99	NR	1.07E+03	1.05E-05	1.00E-09	8.76	1.039	0.1	0.33	10	1	1
13	TPH aromatic >EC5-EC7	TDI	223	TDI	1400	3	200	1.16E-01	8.77E-06	6.64E-10	1.83	2.13	0.1	0.33	10	1	1
14	TPH aromatic >EC7-EC8	TDI	223	TDI	1400	10	520	1.15E-01	7.78E-06	5.88E-10	2.31	2.73	0.1	0.33	10	1	1
15	TPH aromatic >EC8-EC10	TDI	40	TDI	60	9.99E+99	9.99E+99	2.53E-01	1.05E-05	1.00E-09	3.2	3.69	0.1	0.33	10	1	1
16	TPH aromatic >EC10-EC12	TDI	40	TDI	60	9.99E+99	9.99E+99	7.22E-02	1.05E-05	1.00E-09	3.4	3.93	0.1	0.33	10	1	1
17	TPH aromatic >EC12-EC16	TDI	40	TDI	60	9.99E+99	9.99E+99	1.26E-02	1.05E-05	1.00E-09	3.7	4.29	0.1	0.33	10	1	1
18	TPH aromatic >EC16-EC21	TDI	30	NR	0	9.99E+99	NR	6.95E-04	1.05E-05	1.00E-09	4.15	4.82	0.1	0.33	10	1	1
19	TPH aromatic >EC21-EC35	TDI	30	NR	0	9.99E+99	NR	2.48E-05	1.05E-05	1.00E-09	5.1	5.95	0.1	0.33	10	1	1
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	Oral Health Criteria Value ( $\mu\text{g kg}^{-1} \text{ BW day}^{-1}$ )	Inhalation Health Criteria Value ( $\mu\text{g kg}^{-1} \text{ BW day}^{-1}$ )	Oral Mean Daily Intake ( $\mu\text{g day}^{-1}$ )	Inhalation Mean Daily Intake ( $\mu\text{g day}^{-1}$ )	Air-water partition coefficient ( $K_{aw}$ ) ( $\text{cm}^3 \text{ cm}^{-3}$ )	Coefficient of Diffusion in Air ( $\text{m}^2 \text{ s}^{-1}$ )	Coefficient of Diffusion in Water ( $\text{m}^2 \text{ s}^{-1}$ )	$\log K_{oc}$ ( $\text{cm}^2 \text{ g}^{-1}$ )	$\log K_{ow}$ (dimensionless)	Dermal Absorption Fraction (dimensionless)	Soil-to-dust transport factor ( $\text{g g}^{-1} \text{ DW}$ )	Sub-surface soil to indoor air correction factor (dimensionless)	Relative bioavailability via soil ingestion (unitless)	Relative bioavailability via dust inhalation (unitless)
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Environment Agency		Soil-to-water partition coefficient (cm <sup>3</sup> g <sup>-1</sup> )	Vapour pressure (Pa)	Water solubility (mg L <sup>-1</sup> )	Soil-to-plant concentration factor for green vegetables (mg g <sup>-1</sup> plant DW or FW basis over mg g <sup>-1</sup> DW soil)	Soil-to-plant concentration factor for root vegetables (mg g <sup>-1</sup> plant DW or FW basis over mg g <sup>-1</sup> DW soil)	Soil-to-plant concentration factor for tuber vegetables (mg g <sup>-1</sup> plant DW or FW basis over mg g <sup>-1</sup> DW soil)	Soil-to-plant concentration factor for herbaceous fruit (mg g <sup>-1</sup> plant DW or FW basis over mg g <sup>-1</sup> DW soil)	Soil-to-plant concentration factor for shrub fruit (mg g <sup>-1</sup> plant DW or FW basis over mg g <sup>-1</sup> DW soil)	Soil-to-plant concentration factor for tree fruit (mg g <sup>-1</sup> plant DW or FW basis over mg g <sup>-1</sup> DW soil)
1	Benzene	1.96E+00	6.24E+03	1.78E+03	model	model	model	0.00E+00	0.00E+00	model
2	Ethylbenzene	1.30E+01	5.53E+02	1.80E+02	model	model	model	0.00E+00	0.00E+00	model
3	Toluene	5.92E+00	1.73E+03	5.90E+02	model	model	model	0.00E+00	0.00E+00	model
4	Xylene, o-	1.24E+01	3.86E+02	1.73E+02	model	model	model	0.00E+00	0.00E+00	model
5	Xylene, m-	1.42E+01	4.95E+02	2.00E+02	model	model	model	0.00E+00	0.00E+00	model
6	Xylene, p-	1.30E+01	4.75E+02	2.00E+02	model	model	model	0.00E+00	0.00E+00	model
7	TPH aliphatic EC5-EC6	2.36E+01	2.19E+04	3.59E+01	model	model	model	model	model	model
8	TPH aliphatic >EC6-EC8	1.10E+02	3.45E+03	5.37E+00	model	model	model	model	model	model
9	TPH aliphatic >EC8-EC10	8.76E+02	3.20E+02	4.27E-01	model	model	model	model	model	model
10	TPH aliphatic >EC10-EC12	6.96E+03	3.21E+01	3.39E-02	model	model	model	model	model	model
11	TPH aliphatic >EC12-EC16	1.56E+05	1.53E+00	7.59E-04	model	model	model	model	model	model
12	TPH aliphatic >EC16-EC35	1.67E+07	2.38E-02	2.54E-06	model	model	model	model	model	model
13	TPH aromatic >EC5-EC7	1.96E+00	6.24E+03	1.78E+03	model	model	model	model	model	model
14	TPH aromatic >EC7-EC8	5.92E+00	1.73E+03	5.90E+02	model	model	model	model	model	model
15	TPH aromatic >EC8-EC10	4.60E+01	3.20E+02	6.46E+01	model	model	model	model	model	model
16	TPH aromatic >EC10-EC12	7.28E+01	3.21E+01	2.45E+01	model	model	model	model	model	model
17	TPH aromatic >EC12-EC16	1.45E+02	1.14E+00	5.75E+00	model	model	model	model	model	model
18	TPH aromatic >EC16-EC21	4.10E+02	5.63E-03	6.53E-01	model	model	model	model	model	model
19	TPH aromatic >EC21-EC35	3.65E+03	1.61E-06	6.61E-03	model	model	model	model	model	model
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	Soil-to-water partition coefficient (cm <sup>3</sup> g <sup>-1</sup> )	Vapour pressure (Pa)	Water solubility (mg L <sup>-1</sup> )	Soil-to-plant concentration factor for green vegetables (mg g <sup>-1</sup> plant DW or FW basis over mg g <sup>-1</sup> DW soil)	Soil-to-plant concentration factor for root vegetables (mg g <sup>-1</sup> plant DW or FW basis over mg g <sup>-1</sup> DW soil)	Soil-to-plant concentration factor for tuber vegetables (mg g <sup>-1</sup> plant DW or FW basis over mg g <sup>-1</sup> DW soil)	Soil-to-plant concentration factor for herbaceous fruit (mg g <sup>-1</sup> plant DW or FW basis over mg g <sup>-1</sup> DW soil)	Soil-to-plant concentration factor for shrub fruit (mg g <sup>-1</sup> plant DW or FW basis over mg g <sup>-1</sup> DW soil)	Soil-to-plant concentration factor for tree fruit (mg g <sup>-1</sup> plant DW or FW basis over mg g <sup>-1</sup> DW soil)
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