

**TABLE 1**  
**Fate and Transport Screening Model Values**

Parameter	Abbrev.	Value	Units	Reference
<b>Outdoor Air Parameters</b>				
Particulate emission factor <sup>a</sup>	PEF	1.94 E+9	m <sup>3</sup> /kg	USEPA 2002a
Off-site particulate emission factor	PEF <sub>off</sub>	4.40 E+8	m <sup>3</sup> /kg	USEPA 2002a
Dispersion factor for volatiles emitted from soil <sup>b</sup>	Q/C <sub>vol</sub>	83.1	g/m <sup>2</sup> -s per kg/m <sup>3</sup>	USEPA 2002a
<b>Construction Dust Parameters</b>				
Fraction of vegetative cover	V	0	--	USEPA 2002a
Mean annual wind speed	U <sub>m</sub>	4.1	m/s	(1)
Equivalent threshold value of wind speed	U <sub>t</sub>	11.32	m/s	USEPA 2002a
Function dependent on U/U <sub>t</sub>	F(x)	0.194	--	USEPA 2002a
Wet soil bulk density	r <sub>soil</sub>	1.88	Mg/m <sup>3</sup>	Site-specific (2)
Percent moisture in soil	M	9	%	Site-specific (2)
Depth of site excavation	d <sub>excav</sub>	--	m	Site-specific
Areal extent of site excavation	A <sub>excav</sub>	--	m <sup>2</sup>	(3)
Number of times soil is dumped	N <sub>A</sub>	2.0	--	USEPA 2002a
Percent weight of silt in soil	s	10.8	%	Site-specific (2)
Mean dozing speed	S <sub>doz</sub>	11.4	km/hr	USEPA 2002a
Areal extent of site tilling	A <sub>till</sub>	--	acre	(3)
Number of times soil is tilled	N <sub>A</sub>	2.0	--	USEPA 2002a
Average grading speed	S <sub>grade</sub>	--	km/hr	Site-specific
Subchronic dispersion factor for area source-Constant A	A	2.454	--	USEPA 2002a
Subchronic dispersion factor for area source-Constant B	B	17.566	--	USEPA 2002a
Subchronic dispersion factor for area source-Constant C	C	189.043	--	USEPA 2002a
Number of vehicles for duration of construction	N <sub>V</sub>	--	vehicles	Site-specific
Width of road segment	W <sub>R</sub>	6.1	m	USEPA 2002a
Length of road traveled per day	L <sub>D</sub>	--	m/day	Site-specific
Length of road segment	L <sub>R</sub>	--	m	Site-specific
Mean vehicle weight	W	8.0	tonnes	USEPA 2002a
Number of days/year <sup>3</sup> 0.01 inches	p	27.0	days	(4)
Subchronic dispersion factor for road segment-Constant A	A	12.935	--	USEPA 2002a

**TABLE 1**  
**Fate and Transport Screening Model Values**

Parameter	Abbrev.	Value	Units	Reference
Subchronic dispersion factor for road segment-Constant B	B	5.738	--	USEPA 2002a
Subchronic dispersion factor for road segment-Constant C	C	71.771	--	USEPA 2002a
Areal extent of site surface contamination	A <sub>surf</sub>	--	acres	Site-specific
<b>Indoor Air Parameters</b>				
Enclosed space air exchange rate, commercial	ER <sub>c</sub>	0.83 and 2	1/hr and 2/hr	ASTM 2000 (same as 20/day); CalEPA 2005; Michigan Environmental Science Board 2001
<b>Soil/Water Partition Parameters</b>				
Fraction of organic carbon content in soil	foc	---	mg/mg	Site-specific
Organic carbon-water partition coefficient	K <sub>oc</sub>	---chemical-specific---		USEPA 2002a
Water-filled soil porosity	q <sub>w</sub>	---	L <sub>water</sub> /L <sub>soil</sub>	Site-specific
Air-filled soil porosity	q <sub>a</sub>	---	L <sub>air</sub> /L <sub>soil</sub>	Site-specific
Henry's law constant (dimensionless)	H'	---chemical-specific---		USEPA 2002a
Soil bulk density	r <sub>b</sub>	---	kg/L	Site-specific

<sup>a</sup>For non-construction worker exposures only. Construction worker dust exposures calculated from USEPA, 2002a.

<sup>b</sup>Calculated using values for Las Vegas, NV in Appendix D of USEPA, 2002a.

(1) - Derived from Western Regional Climate Center (WRCC). 2010. Average wind speeds for Las Vegas. Desert Research Institute. <http://www.wrcc.dri.edu/htmlfiles/westwind.final.html#NEVADA>.

(2) - Data provided in Appendix A.

(3) - Assumed value of one fifth of the site based upon USEPA (2002a).

(4) - Based on long-term weather data for the area of interest (NDEP asbestos calculation worksheet, On-line. <http://www.ndep.nv.gov/bmi/technical.htm#asbestos>).