SL-SCREEN Version 3.1; 02/04	CALCULATE RISK	(-BASED SOIL CON	ICENTRATION (e	nter "X" in "YES" bo	x)		
Reset to		YES	X OR]			
Defaults	CALCULATE INCF	REMENTAL RISKS		OIL CONCENTRAT	TON (enter "X" in	"YES" box and initia	I soil conc. below)
		YES]			
	Chemical CAS No.	ENTER Initial soil conc.,					
	(numbers only,	CR					
	no dashes)	(μg/kg)		Chemical			
	100414			Ethylbenzene			
	ENTER	ENTER	ENTER	ENTER		ENTER	7
MORE ↓	Depth below grade to bottom of enclosed space floor, L _F (15 or 200 cm)	Depth below grade to top of contamination, L ₁ (cm)	Average soil temperature, T _S (°C)	Vadose zone SCS soil type (used to estimate soil vapor permeability)	OR	User-defined vadose zone soil vapor permeability, k _v (cm²)	
	15	400	15	SC	- 1 [7
							_
MORE	ENTER Vandose zone	ENTER Vadose zone	ENTER Vadose zone	ENTER Vadose zone	ENTER Vadose zone		ENTER Average vapor
Ψ	SCS soil type	soil dry bulk density,	soil total porosity,	soil water-filled porosity,	soil organic carbon fraction,		flow rate into bldg. (Leave blank to calculate)
	Lookup Soil	ρ _b ^A	n ^V	θ_{w}^{V}	f _{oc} V		Q _{soil}
	Parameters	(g/cm ³)	(unitless)	(cm ³ /cm ³)	(unitless)		(L/m)
	SC	1.63	0.385	0.197	0.002		5
		1.00	0.000	0.707	0.002		
MORE ↓	ENTER Averaging time for carcinogens, AT _C	ENTER Averaging time for noncarcinogens, AT _{NC}	ENTER Exposure duration, ED (yrs)	EXPOSURE frequency, EF (days/yr)	ENTER Target risk for carcinogens, TR (unitless)	ENTER Target hazard quotient for noncarcinogens, THQ (unitless)	
	(yrs)	(yrs)	(915)	(days/yi)	(unitess)	(unitess)	_
	70	30	30	350	1.0E-05	1	
END					an our state of the first of the	culate risk-based	

RISK-BASED SOIL CONCENTRATION CALCULATIONS:

INCREMENTAL RISK CALCULATIONS:

carcinogen noncarcinogen conc., C _{sat} conc.,
(μg/kg) (μg/kg) (μg/kg) (μg/kg)

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
NA	NA

MESSAGE SUMMARY BELOW:

MESSAGE: The values of Csource and Cbuilding on the INTERCALCS worksheet are based on unity and do not represent actual values.

END

SL_EB_RiskBased_4m 1 of 1

SL-SCREEN	CALCULATE RISK	K-BASED SOIL CON	ICENTRATION (e	nter "X" in "YES" bo	×)		
Version 3.1; 02/04		I	V	1			
Reset to		YES	X	J			
Defaults			OR				
Delaults	CALCULATE INCF	REMENTAL RISKS I	FROM ACTUAL S	OIL CONCENTRAT	ION (enter "X" in	"YES" box and initia	l soil conc. below)
		YES		1			
		120		1			
	ENTER	ENTER					
	Chemical	Initial soil					
	CAS No.	conc.,					
	(numbers only,	C_R					
	no dashes)	(μg/kg)		Chemical			
	400444			Fr. 0			
	100414			Ethylbenzene			
118	ENTER	ENTER	ENTER	ENTER		ENTER	
MORE	Depth			Vadose zone		User-defined	
	below grade to bottom	Depth below	Average	SCS SCS		vadose zone	
	of enclosed	grade to top	soil	soil type		soil vapor	
	space floor,	of contamination,	temperature,	(used to estimate	OR	permeability,	
	L _F (15 or 200 cm)	L _t (cm)	T _S (°C)	soil vapor permeability)		k _v (cm²)	
	(15 01 200 GHI)	(CIII)	(0)	permeability)		(GIII)	=
	15	800	15	SC			
[MODE	ENTER	ENTER	ENTER	ENTER	ENTER		ENTER
MORE	Vandose zone SCS	Vadose zone soil dry	Vadose zone soil total	Vadose zone soil water-filled	Vadose zone soil organic		Average vapor flow rate into bldg.
	soil type	bulk density,	porosity,	porosity,	carbon fraction,		(Leave blank to calculate)
	Lookup Soil	ρ_b^A	n ^v	θ_w^V	f _{oc} ^V		Q_{soil}
	Parameters	(g/cm ³)	(unitless)	(cm ³ /cm ³)	(unitless)		(L/m)
	SC	1.63	0.385	0.197	0.002		5
	30	1.00	0.003	0.107	0.002		
	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	
MORE	Averaging	Averaging			Target	Target hazard	
₩	time for	time for	Exposure	Exposure	risk for	quotient for	
	carcinogens, AT _C	noncarcinogens, AT _{NC}	duration, ED	frequency, EF	carcinogens, TR	noncarcinogens, THQ	
	(yrs)	(yrs)	(yrs)	(days/yr)	(unitless)	(unitless)	
							_
	70	30	30	350	1.0E-05	1	
					Used to cal	culate risk-based	
END					soil co	oncentration.	

RISK-BASED SOIL CONCENTRATION CALCULATIONS:

INCREMENTAL RISK CALCULATIONS:

Indoor exposure soil conc., carcinogen (µg/kg)	Indoor exposure soil conc., noncarcinogen (µg/kg)	Risk-based indoor exposure soil conc., (µg/kg)	Soil saturation conc., C _{sat} (µg/kg)	Final indoor exposure soil conc., (µg/kg)	Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
NA	3.48F+04	3.48F+04	1.47F+05	3.48E+04	□ NA	I NA

MESSAGE SUMMARY BELOW:

MESSAGE: The values of Csource and Cbuilding on the INTERCALCS worksheet are based on unity and do not represent actual values.

END

1 of 1

RISK-BASED SOIL CONCENTRATION CALCULATIONS:

INCREMENTAL RISK CALCULATIONS:

Indoor exposure soil conc., carcinogen (µg/kg)	Indoor exposure soil conc., noncarcinogen (µg/kg)	Risk-based indoor exposure soil conc., (µg/kg)	Soil saturation conc., C _{sat} (µg/kg)	Final indoor exposure soil conc., (µg/kg)	Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
NA	1.41E+07	1.41E+07	5.49E+04	NOC	NA	NA

MESSAGE SUMMARY BELOW:

MESSAGE: The values of Csource and Cbuilding on the INTERCALCS worksheet are based on unity and do not represent actual values.

NOC = NOT OF CONCERN. The contaminant is a solid at the soil temperature and not of concern for this pathway.

MESSAGE: Risk/HQ or risk-based soil concentration is based on a route-to-route extrapolation.

END

SL_Fluor_RiskBased_2.5m 1 of 1

SL-SCREEN	CALCULATE RISK	-BASED SOIL CON	CENTRATION (e	nter "X" in "YES" box	k)		
Version 3.1; 02/04		YES	Х	1			
Reset to			OR	•			
Defaults	CALCULATE INCF	REMENTAL RISKS F	FROM ACTUAL S	OIL CONCENTRAT	ION (enter "X" in '	'YES" box and initia	I soil conc. below)
		YES]			
	ENTER	ENTER					
	Ohamiaal	Initial					
	Chemical CAS No.	soil conc.,					
	(numbers only,	C _R					
	no dashes)	(μg/kg)		Chemical			
	86737			Fluorene			
MORE	ENTER	ENTER	ENTER	ENTER		ENTER	7
MORE	Depth below grade			Vadose zone		User-defined	
	to bottom	Depth below	Average	SCS		vadose zone	
	of enclosed	grade to top	soil	soil type		soil vapor	
	space floor,	of contamination,	temperature,	(used to estimate	OR	permeability,	
	L _F	L _t	T _s	soil vapor		k _v	
	(15 or 200 cm)	(cm)	(°C)	permeability)		(cm ²)	=
	15	250	15	SC			_
	ENTER	ENTER	ENTER	ENTER	ENTER		ENTER
MORE	Vandose zone	Vadose zone	Vadose zone	Vadose zone	Vadose zone		Average vapor
WO'12	SCS	soil dry	soil total	soil water-filled	soil organic		flow rate into bldg.
	soil type	bulk density,	porosity, n ^V	porosity,	carbon fraction,		(Leave blank to calculate)
	Lookup Soil	ρ_b^A	n ^V	θ_w^V	f _{oc} V		Q _{soil}
	Parameters	(g/cm ³)	(unitless)	(cm ³ /cm ³)	(unitless)		(L/m)
	SC	1.63	0.385	0.197	0.002		5
	- 55	1.00	0.000		3.000		
Cuone I	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	
MORE .	Averaging time for	Averaging time for	Exposure	Exposure	Target risk for	Target hazard quotient for	
	carcinogens,	noncarcinogens,	duration,	frequency,	carcinogens,	noncarcinogens,	
	AT _C	AT _{NC}	ED	EF	TR	THQ	
	(yrs)	(yrs)	(yrs)	(days/yr)	(unitless)	(unitless)	_
	70	30	30	350	1.0E-05	1	
END						culate risk-based ncentration.	

SL-SCREEN Version 3.1; 02/04	CALCULATE RISK	K-BASED SOIL CON	CENTRATION (e	nter "X" in "YES" bo	×)		
Reset to Defaults	OALOUR ATE INOS	YES [X OR]	ION (antor IVII in I	IVES! have and initia	J ceil cono bolovi
Dollano	CALCULATE INCF	REMENTAL RISKS F	-HOM ACTUAL S	OIL CONCENTRAT	ION (enter X III	TES DOX and milita	il Soil Coric. Delow)
	ENTER Chemical	ENTER Initial soil		1			
	CAS No. (numbers only, no dashes)	conc., C _R (μg/kg)		Chemical			
	108383	(µg/kg/		m-Xylene			
MORE	ENTER Depth below grade	ENTER	ENTER	ENTER Vadose zone	-	ENTER User-defined	
	to bottom of enclosed space floor, L _F	Depth below grade to top of contamination,	Average soil temperature, T _S (°C)	SCS soil type (used to estimate soil vapor	OR	vadose zone soil vapor permeability, k _v (cm ²)	
	(15 or 200 cm)	(cm)	15	permeability) SC	= =] [(ciii)	
							_
MORE V	ENTER Vandose zone SCS soil type Lookup Soil Parameters	ENTER Vadose zone soil dry bulk density, ρ_b^A (g/cm³)	Vadose zone soil total porosity, n ^V (unitless)	ENTER Vadose zone soil water-filled porosity, θ_w^V (cm³/cm³)	ENTER Vadose zone soil organic carbon fraction, foc (unitless)		ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q _{soil} (L/m)
	SC	1.63	0.385	0.197	0.002		5
							· · · · · · · · · · · · · · · · · · ·
MORE 🔱	ENTER Averaging time for carcinogens, AT _C (yrs)	ENTER Averaging time for noncarcinogens, AT _{NC} (yrs)	EXPOSURE duration, ED (yrs)	EXPOSURE frequency, EF (days/yr)	ENTER Target risk for carcinogens, TR (unitless)	ENTER Target hazard quotient for noncarcinogens, THQ (unitless)	_
	70	30	30	350	1.0E-05	11	\exists
END					[2000] [2	culate risk-based incentration.	

RISK-BASED SOIL CONCENTRATION CALCULATIONS:

INCREMENTAL RISK CALCULATIONS:

Indoor exposure	Indoor exposure	Risk-based indoor	Soil	Final indoor	risk from vapor	quotient from vapor
soil	soil	exposure	saturation	exposure	intrusion to	intrusion to
conc.,	conc.,	soil	conc.,	soil	indoor air,	indoor air,
carcinogen (μg/kg)	noncarcinogen (μg/kg)	conc., (μg/kg)	C _{sat} (μg/kg)	conc., (µg/kg)	carcinogen (unitless)	noncarcinogen (unitless)
NA	1.40E+03	1.40E+03	1.54E+05	1.40E+03	NA	NA

MESSAGE SUMMARY BELOW:

MESSAGE: The values of Csource and Cbuilding on the INTERCALCS worksheet are based on unity and do not represent actual values.

RISK-BASED SOIL CONCENTRATION CALCULATIONS:

INCREMENTAL RISK CALCULATIONS:

Indoor exposure soil conc., carcinogen	Indoor exposure soil conc., noncarcinogen	Risk-based indoor exposure soil conc.,	Soil saturation conc.,	Final indoor exposure soil conc.,	risk from vapor intrusion to indoor air, carcinogen	Hazard quotient from vapor intrusion to indoor air, noncarcinogen
(μg/kg)	(μg/kg)	(μg/kg)	(μg/kg)	(μg/kg)	(unitless)	(unitless)
NA	2.23E+03	2.23E+03	1.54E+05	2.23E+03	NA	NA

MESSAGE SUMMARY BELOW:

MESSAGE: The values of Csource and Cbuilding on the INTERCALCS worksheet are based on unity and do not represent actual values.

END

SL_mXy_RiskBased_4m 1 of 1

SL-SCREEN	CALCULATE RISK	K-BASED SOIL CON	ICENTRATION (e	nter "X" in "YES" bo	×)		
Version 3.1; 02/04		VE0.		1			
Reset to		YES	OR	I			
Defaults	CALCULATE INCF	REMENTAL RISKS		OIL CONCENTRAT	ION (enter "X" in '	'YES" box and initia	l soil conc. below)
				•			
		YES					
	ENTER	ENTER					
	01	Initial					
	Chemical CAS No.	soil conc.,					
	(numbers only,	C _R					
	no dashes)	(μg/kg)		Chemical			
	108383			m-Xylene			
	100000			III-Aylelle			
	ENTER	ENTER	ENTER	ENTER		ENTER	\neg
MORE	Depth			2505 7005		1015 (477/410 97	
Ψ	below grade	D # 1 - 1		Vadose zone		User-defined	
	to bottom of enclosed	Depth below grade to top	Average soil	SCS soil type		vadose zone soil vapor	
	space floor,	of contamination,	temperature,	(used to estimate	OR	permeability,	
	L _F	L	Ts	soil vapor		, k _v	
	(15 or 200 cm)	(cm)	(°C)	permeability)		(cm ²)	
	15	400	15	SC			
	ENTER	ENTER	ENTER	ENTER	ENTER		ENTER
MORE	Vandose zone SCS	Vadose zone	Vadose zone soil total	Vadose zone soil water-filled	Vadose zone		Average vapor flow rate into bldg.
	soil type	soil dry bulk density,	porosity,	porosity,	soil organic carbon fraction,		(Leave blank to calculate)
	Lookup Soil	Pb ^A	n ^V	$\theta_{\rm w}^{\rm V}$	f _{oc} V		Q _{soil}
	Parameters	(g/cm ³)	(unitless)	(cm ³ /cm ³)	(unitless)		(L/m)
		(9/0/11/	(driftess)	(6.11.75111.7)	(drittess)		(Lini)
	SC	1.63	0.385	0.197	0.002		5
	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	
MORE	Averaging	Averaging	ENTEN	ENTEN	Target	Target hazard	
₩	time for	time for	Exposure	Exposure	risk for	quotient for	
	carcinogens,	noncarcinogens,	duration,	frequency,	carcinogens,	noncarcinogens,	
	ATc	AT _{NC}	ED	EF	TR	THQ	
	(yrs)	(yrs)	(yrs)	(days/yr)	(unitless)	(unitless)	_
	70	30	30	350	1.0E-05	1	
					Used to calc	culate risk-based	
END						ncentration.	

SL-SCREEN Version 3.1; 02/04	CALCULATE RISH	K-BASED SOIL CON	NCENTRATION (e	enter "X" in "YES" bo	x)		
Reset to Defaults	CALCUL ATE INC	YES	OR	OIL CONCENTERAL	TON (antes BVII in	IVEC box and initial	al anii aana balaasii
	CALCULATE INCI	YES	FROM ACTUAL S]	ION (enter X in	"YES" DOX and Initia	al soil conc. below)
	Chemical CAS No. (numbers only, no dashes)	ENTER Initial soil conc., C _R (μg/kg)		Chemical			
	108383			m-Xylene			
MORE ↓	ENTER Depth below grade to bottom of enclosed space floor, L _F (15 or 200 cm)	Depth below grade to top of contamination, L _t (cm)	ENTER Average soil temperature, Ts (°C)	ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)	OR =	User-defined vadose zone soil vapor permeability, k _v (cm ²)	
	15	800	15	SC			
MORE ↓	ENTER Vandose zone SCS Soil type Lookup Soil Parameters	ENTER Vadose zone soil dry bulk density, pb ^A (g/cm³)	ENTER Vadose zone soil total porosity, n ^V (unitless)	ENTER Vadose zone soil water-filled porosity, θ_w^V (cm^3/cm^3)	ENTER Vadose zone soil organic carbon fraction, foc (unitless)		ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q _{soil} (L/m)
	SC	1.63	0.385	0.197	0.002		5
MORE Ψ	ENTER Averaging time for carcinogens, AT _C (yrs)	ENTER Averaging time for noncarcinogens, AT _{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)	ENTER Target risk for carcinogens, TR (unitless)	ENTER Target hazard quotient for noncarcinogens, THQ (unitless)	
	70	30	30	350	1.0E-05	1	
END						culate risk-based	

RISK-BASED SOIL CONCENTRATION CALCULATIONS:

INCREMENTAL RISK CALCULATIONS:

Indoor exposure soil conc., carcinogen (µg/kg)	Indoor exposure soil conc., noncarcinogen (µg/kg)	Risk-based indoor exposure soil conc., (µg/kg)	Soil saturation conc., C _{sat} (µg/kg)	Final indoor exposure soil conc., (µg/kg)	Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
NA	4.41E+03	4.41E+03	1.54E+05	4.41E+03	NA	NA

MESSAGE SUMMARY BELOW:

MESSAGE: The values of Csource and Cbuilding on the INTERCALCS worksheet are based on unity and do not represent actual values.

END

SL_mXy_RiskBased_8m 1 of 1

SL-SCREEN Version 3.1; 02/04 Reset to Defaults		YES REMENTAL RISKS I YES ENTER Initial soil conc., C _R (µg/kg)	X]		"YES" box and initia	il soil conc. below)
MORE ψ	ENTER Depth below grade to bottom of enclosed space floor, L _F (15 or 200 cm)	ENTER Depth below grade to top of contamination, L ₁ (cm)	ENTER Average soil temperature, Ts (°C)	ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability) SC	OR -	ENTER User-defined vadose zone soil vapor permeability, k _V (cm²)	
MORE ↓	ENTER Vandose zone SCS soil type Lookup Soil Parameters SC	ENTER Vadose zone soil dry bulk density, pb (g/cm³)	Vadose zone soil total porosity, nV (unitless)	ENTER Vadose zone soil water-filled porosity, θ_w^V (cm^3/cm^3)	ENTER Vadose zone soil organic carbon fraction, f _{cc} (unitless)		ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q _{soil} (L/m) 5
MORE U	ENTER Averaging time for carcinogens, AT _C (yrs)	ENTER Averaging time for noncarcinogens, AT _{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)	ENTER Target risk for carcinogens, TR (unitless)	ENTER Target hazard quotient for noncarcinogens, THQ (unitless)	= -
END					V-10-000-000-000-000-000-000-000-000-000	culate risk-based oncentration.	

RISK-BASED SOIL CONCENTRATION CALCULATIONS:

INCREMENTAL RISK CALCULATIONS:

Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)

Indoor exposure	Indoor exposure	Risk-based indoor	Soil	Final indoor	Incremental risk from vapor
soil	soil	exposure	saturation	exposure	intrusion to
conc.,	conc.,	soil	conc.,	soil	indoor air,
carcinogen (μg/kg)	noncarcinogen (μg/kg)	conc., (µg/kg)	C _{sat} (μg/kg)	conc., (μg/kg)	carcinogen (unitless)
NA	3.73F+03	3.73F+03	1.28F+05	3.73F+03	NA NA

MESSAGE SUMMARY BELOW:

MESSAGE: The values of Csource and Cbuilding on the INTERCALCS worksheet are based on unity and do not represent actual values.

Reset to Defaults CALCULATE INCREMENTAL RISKS FROM ACTUAL SCIL CONCENTRATION (enter "X" in "YES" box and initial soil conc. below) YES ENTER Initial Chamical CAS No. CAS	SL-SCREEN Version 3.1; 02/04	CALCULATE RISH	K-BASED SOIL COM	NCENTRATION (e	nter "X" in "YES" bo	x)		
YES ENTER Initial Chemical soil CAS No. conc., (numbers only, Gr no dashes) (µg/kg) Place of the properties of the pr	Reset to			OR]			
ENTER	Defaults	CALCULATE INCI		FROM ACTUAL S	OIL CONCENTRAT	TON (enter "X" in	"YES" box and initia	al soil conc. below)
Chemical Soil CAS No. conc., (numbers only, Cq, no dashes) (µg/kg) Chemical 91203 Naphthalene ■ ENTER ENTER ENTER Depth below grade to top space litor, of contamination, temperature, Lr L, Ts soil vapor permeability, soil vapor permeability, losed to estimate OR soil vapor permeability, soil vapor permeability) 15					J			
CAS No. (numbers only, C _n no dashes) (µg/kg) Chemical 91203 Naphthalene ENTER ENTER ENTER Depth below grade to top soil yapor of enclosed grade to top soil yapor (La vadose zone yadose zone yad			Initial					
(numbers only, Cn no dashes) (µg/kg) Chemical 91203 Naphthalene ENTER ENTER ENTER User-defined vadose zone soil vapor soil vapor permeability, let or vadose zone soil vapor permeability. LF L, Ts soil vapor permeability) 15 400 15 SC ENTER Vadose zone Soil vapor permeability) ENTER Vadose zone Soil vapor permeability) 15 400 15 SC ENTER Vadose zone soil vapor permeability) ENTER Vadose zone soil vapor permeability) Loeup Soil vapor permeability) ENTER Vadose zone soil vapor permeability) ENTER Vadose zone soil vapor permeability) ENTER Vadose zone soil vapor soil vapor permeability) ENTER Vadose zone soil vapor permeability) (Leave blank to calculate permeability) ENTER Target Pazard Target Pazard Target Target Pazard Target Target Pazard Target Pazard Target Target Pazard Target Target Target Pazard Target Pazard Target Target Pazard Target Pazar								
SCS Soli trype Soli tryp								
Service Ser		AND THE PROPERTY OF THE PARTY AND A PARTY.			Chemical			
ENTER Depth Depth below grade to top SCS Soli type Soli vapor Sco Sco Soli vapor Sco Sco Sco Soli vapor Sco Sco Sco Soli vapor Sco Sco Sco Sco Soli vapor Sco Sc		110 daoi100/	(1-55)		Onomical			
Depth		91203			Naphthalene			
Depth		ENTER	ENTER	ENTER	ENTER		ENTER	_
to bottom of enclosed sprace to top soil type soil type (used to estimate soil vapor permeability, temperature, temperatu	MORE							
of enclosed space floor, of contamination, temperature, Lt, Lt, Ts soil vapor permeability, soil vapor permeability) Its or 200 cm) (cm) (°C) permeability) ENTER Vandose zone Vadose zone soil dry soil total soil vater-filled soil organic carbon fraction, porosity, porosit	Ψ							
space floor, L _F L _t T _S soil vapor (cm) (°C) permeability) 15			1		1400000000			
Companies		AND THE PERSON NAMED IN				OB		
ENTER Vandose zone Vadose zone SCS soil type bulk density, porosity, parameters (g/cm³) (unitless) (cm³/cm³) (unitless) (cm³/cm³) (unitless) (cm³/cm³) (unitless) (unitles						OH		
## Parameters ENTER ENTER ENTER Vadose zone SCS soil dry bulk density, porosity, poro					Saturday seed-nets			
MORE Vandose zone Vadose zone SCS soil dry soil total soil water-filled soil organic carbon fraction, (Leave blank to calculate (L/m)) SC 1.63 0.385 0.197 0.002 ENTER ENTER ENTER ENTER ENTER (L/m) SC 1.63 0.385 0.197 0.002 ENTER Averaging time for carcinogens, AT C AT NC (yrs) (yrs) (yrs) (yrs) (yrs) (yrs) (days/rr) (unitless)		(15 01 200 011)	(GIII)	(9)	permeability)	= =	(6117)	=
MORE Vandose zone SCS Vadose zone soil dry Vadose zone soil total 		15	400	15	SC			\exists
MORE Vandose zone SCS Vadose zone soil dry Vadose zone soil total porosity, porosity, Vadose zone soil water-filled porosity, carcinopans, carcinogans porosity, (unitless) Average vapor flow rate into bldg. (Leave blank to calculate (Leave blank to calculate flow rate into bldg. (Leave bla		,,						
SCS soil dry bulk density, porosity,	V	ENTER	ENTER	ENTER	ENTER	ENTER		ENTER
Soil type bulk density, porosity, porosity, carbon fraction, (Leave blank to calculate for time for carcinogens, noncarcinogens, a Tc (yrs) (yrs) (yrs) (yrs) (yrs) (days/yr) (unitless) (carbon fraction, for time for tim								
Lookup Soil Parameters (g/cm³) (unitless) (cm³/cm³) (unitless) (cm³/cm³) (unitless) SC 1.63 0.385 0.197 0.002 5 ENTER ENTER ENTER ENTER ENTER Target Target hazard quotient for carcinogens, noncarcinogens, duration, frequency, carcinogens, noncarcinogens, AT _C AT _{NC} ED EF TR THQ (yrs) (yrs) (yrs) (yrs) (days/yr) (unitless) (unitless) ENTER ENTER ENTER ENTER Target Target hazard quotient for quotient for quotient for carcinogens, noncarcinogens, noncarcinogens, noncarcinogens, noncarcinogens, and the carcinogens (unitless) (unitless)	Ψ							
Parameters (g/cm³) (unitless) (cm³/cm³) (unitless) (L/m) SC 1.63 0.385 0.197 0.002 5 ENTER ENTER ENTER ENTER ENTER Target Target Target Target Target time for time for time for carcinogens, noncarcinogens, duration, frequency, carcinogens, noncarcinogens, AT _C AT _{NC} ED EF TR THQ (yrs) (yrs) (yrs) (yrs) (days/yr) (unitless) (unitless) To 30 30 30 350 1.0E-05 1 Used to calculate risk-based		() () () () () () () () () ()		porosity,	porosity,			\$
SC 1.63 0.385 0.197 0.002 5 SC SC SC SC SC SC SC S								
MORE ↓ ENTER Averaging Averaging time for time for carcinogens, noncarcinogens, AT _C (yrs) (yrs) AT _C (yrs) AT _C (yrs) AT _C (yrs) AT _C (yrs) (yrs) (yrs) AT _C (yrs) (yrs) (yrs) (yrs) AT _C (yrs) (yrs) (yrs) (yrs) (yrs) (yrs) (yrs) (yrs) (yrs) ENTER Target Target Target hazard quotient for quotient for carcinogens, noncarcinogens, noncarcinogens, noncarcinogens, and the properties of		, arameters	(g/cm ^o)	(unitless)	(cm²/cm²)	(unitless)		(L/m)
MORE ↓ Averaging time for time for Exposure Exposure Frisk for quotient for carcinogens, noncarcinogens, duration, frequency, carcinogens, noncarcinogens, AT _C AT _{NC} ED EF TR THQ (yrs) (yrs) (yrs) (days/yr) (unitless) (unitless) 70 30 30 350 1.0E-05 1 Used to calculate risk-based		SC	1.63	0.385	0.197	0.002		5
MORE ↓ Averaging time for time for Exposure Exposure Frisk for quotient for carcinogens, noncarcinogens, duration, frequency, carcinogens, noncarcinogens, AT _C AT _{NC} ED EF TR THQ (yrs) (yrs) (yrs) (days/yr) (unitless) (unitless) 70 30 30 350 1.0E-05 1 Used to calculate risk-based		,						
MORE ↓ Averaging time for time for Exposure Exposure Frisk for quotient for carcinogens, noncarcinogens, duration, frequency, carcinogens, noncarcinogens, AT _C AT _{NC} ED EF TR THQ (yrs) (yrs) (yrs) (days/yr) (unitless) (unitless) 70 30 30 350 1.0E-05 1 Used to calculate risk-based		ENTED	ENTER	ENTER	ENTER	ENTER	ENTER	
time for time for Exposure Frisk for quotient for carcinogens, noncarcinogens, duration, frequency, carcinogens, noncarcinogens, AT _C AT _{NC} ED EF TR THQ (yrs) (yrs) (yrs) (days/yr) (unitless) (unitless) 70 30 30 350 1.0E-05 1 Used to calculate risk-based	MORE			LIVILII	LIVILII			
AT _C AT _{NC} ED EF TR THQ (yrs) (yrs) (yrs) (days/yr) (unitless) (unitless) 70 30 30 350 1.0E-05 1 Used to calculate risk-based				Exposure	Exposure			
(yrs) (yrs) (days/yr) (unitless) (unitless) 70 30 30 350 1.0E-05 1 Used to calculate risk-based		carcinogens,	noncarcinogens,					
70 30 30 350 1.0E-05 1 Used to calculate risk-based								
Used to calculate risk-based		(yrs)	(yrs)	(yrs)	(days/yr)	(unitless)	(unitless)	
Used to calculate risk-based		70	30	30	350	1.0E-05	1	
	FND					Control of the Contro		

RISK-BASED SOIL CONCENTRATION CALCULATIONS:

INCREMENTAL RISK CALCULATIONS:

Hazard
quotient
from vapor
intrusion to
indoor air,
noncarcinogen
(unitless)

Indoor exposure soil conc.,	re exposure indoor soil exposure , conc., soil		Soil saturation conc.,	Final indoor exposure soil	Incrementa risk from vapor intrusion to indoor air,	
carcinogen (μg/kg)	noncarcinogen (μg/kg)	conc., (μg/kg)	C _{sat} (μg/kg)	conc., (μg/kg)	carcinogen (unitless)	
NA	5.94E+03	5.94E+03	1.28E+05	5.94E+03	NA	

MESSAGE SUMMARY BELOW:

MESSAGE: The values of Csource and Cbuilding on the INTERCALCS worksheet are based on unity and do not represent actual values.

SL-SCREEN Version 3.1; 02/04 Reset to Defaults		YES REMENTAL RISKS YES ENTER Initial soil conc., CR	X]		"YES" box and initia	al soil conc. below)
	no dashes)	(μg/kg)		Chemical			
	95476			o-Xylene			
MORE ↓	ENTER Depth below grade to bottom of enclosed space floor, L _F (15 or 200 cm)	ENTER Depth below grade to top of contamination, Lt (cm)	ENTER Average soil temperature, Ts (°C)	ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined vadose zone soil vapor permeability, k _v (cm²)	
	15	250	15	SC			
MORE ↓	ENTER Vandose zone SCS soil type Lookup Soil Parameters	ENTER Vadose zone soil dry bulk density, pb^ (g/cm³)	ENTER Vadose zone soil total porosity, n ^V (unitless)	ENTER Vadose zone soil water-filled porosity, θ_w^V (cm^3/cm^3)	ENTER Vadose zone soil organic carbon fraction, f _{oc} (unitless)		ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q _{soil} (L/m)
MORE ↓	ENTER Averaging time for carcinogens, AT _C (yrs)	ENTER Averaging time for noncarcinogens, AT _{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)	ENTER Target risk for carcinogens, TR (unitless)	ENTER Target hazard quotient for noncarcinogens, THQ (unitless)	_
	70	30	30	350	1.0E-05	11	
END						culate risk-based	

RISK-BASED SOIL CONCENTRATION CALCULATIONS:

INCREMENTAL RISK CALCULATIONS:

Indoor	Indoor	Risk-based		Final	Incremental risk from	Hazard
	100000000000000000000000000000000000000	indoor	Soil	indoor	42002.1007.10	quotient
exposure soil	exposure soil	exposure	saturation	exposure	vapor intrusion to	from vapor intrusion to
conc.,	conc.,	soil	conc.,	soil	indoor air,	indoor air,
carcinogen (μg/kg)	noncarcinogen (μg/kg)	conc., (µg/kg)	C _{sat} (μg/kg)	conc., (μg/kg)	carcinogen (unitless)	noncarcinoger (unitless)
					-	
NA	1.48E+03	1.48E+03	1.53E+05	1.48E+03	NA	NA

MESSAGE SUMMARY BELOW:

MESSAGE: The values of Csource and Cbuilding on the INTERCALCS worksheet are based on unity and do not represent actual values.