

HAPEM4 ME FACTOR

(FOR COMPLETE DOCUMENTATION SEE
Development of Microenvironmental Factors for the HAPEM4 in Support of the
National Air Toxics Assessment (NATA)
External Review Draft Report
May 8, 2000)

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Microenvironmental Factors by Pollutant, Microenvironment, and Source Category for Specified HAPs

Pollutant: <u>Acetaldehyde</u> (#1) HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^a		PEN [Data Code] ^a	MULT = PROX \times PEN		Reference Sources
		Onroad	Major, area, and nonroad ^c		Onroad	Major, area, and nonroad ^d	
Car - In vehicle ' 1		3.5 [2]	1.0 [3]	0.90 [2]	3.15	0.9	
Bus - In vehicle ' 2		3.5 [2]	1.0 [3]	0.90 [2]	3.15	0.9	
Truck - In vehicle ' 3		3.5 [2]	1.0 [3]	0.90 [2]	3.15	0.9	
Other - In vehicle ' 4		3.5 [2]	1.0 [3]	0.90 [2]	3.15	0.9	
Public garage - Indoors ' 5		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Parking lot/garage - Outdoors ' 6		2.7 [2]	1.0 [3]	1.0 [3]	2.7	1	
Near road - Outdoors ' 7		2.7 [2]	1.0 [3]	1.0 [3]	2.7	1	
Motorcycle - Outdoors ' 8		2.7 [2]	1.0 [3]	1.0 [3]	2.7	1	
Service station - Indoors ' 9		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Service station - Outdoors ' 10		2.7 [2]	1.0 [3]	1.0 [3]	2.7	1	
Residential garage - Indoors ' 11		1.0 [3]	1.0 [3]	0.81 [2]	0.81	0.81	
Other repair shop - Indoors ' 12		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Residence (no CO source) - Indoors' 13		1.0 [3]	1.0 [3]	0.75 [1]	0.75	0.75	MZ 27
Residence (gas stove) - Indoors ' 14		1.0 [3]	1.0 [3]	0.81 [2]	0.81	0.81	
Residence (attached garage) - Indoors' 15		1.0 [3]	1.0 [3]	0.81 [2]	0.81	0.81	
Residence (stove and garage)- Indoors' 16		1.0 [3]	1.0 [3]	0.81 [2]	0.81	0.81	
Office - Indoors ' 17		1.0 [3]	1.0 [3]	0.55 [1]	0.55	0.55	MZ 10
Store - Indoors ' 18		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Restaurant - Indoors ' 19		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Manufacturing facility - Indoors ' 20		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
School - Indoors ' 21		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Church- Indoors ' 22		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Shopping mall - Indoors ' 23		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Auditorium - Indoors ' 24		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Health care facility - Indoors ' 25		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Other public building - Indoors ' 26		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Other location - Indoors ' 27		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Not specified - Indoors ' 28		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
Train/subway - In vehicle ' 36		3.5 [2]	1.0 [3]	0.90 [2]	3.15	0.9	
Airplane - In vehicle ' 37		0.0 [3]	0.0 [3]	0.90 [2]	0	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b Onroad vehicle source category (see text).

^c Major, area, and nonroad-mobile source categories (see text).

^d The MULT factor is the product of the PROX factor and the PEN factor for the onroad vehicle source category and for the major, area, and nonroad-mobile source categories for this pollutant.

Formula: Microenvironmental concentration, $\mu\text{g}/\text{m}^3 = \text{ADD} + (\text{PROX})(\text{PEN})(\text{monitor concentration, } \mu\text{g}/\text{m}^3)$.

Abbreviations: ADD = additive factor; PROX = proximity factor; PEN = penetration factor; MULT = $\text{PROX} \times \text{PEN}$.

Pollutant: <u>Acrolein</u> (#2) HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^a		PEN [Data Code] ^a	MULT = PROX \times PEN		Reference Sources
		Onroad	Major, area, and nonroad ^c		Onroad ^d	Major, area, and nonroad	
Car - In vehicle ' 1		3.5 [2]	1.0 [3]	0.90 [2]	3.15	0.9	
Bus - In vehicle ' 2		3.5 [2]	1.0 [3]	0.90 [2]	3.15	0.9	
Truck - In vehicle ' 3		3.5 [2]	1.0 [3]	0.90 [2]	3.15	0.9	
Other - In vehicle ' 4		3.5 [2]	1.0 [3]	0.90 [2]	3.15	0.9	
Public garage - Indoors ' 5		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Parking lot/garage - Outdoors ' 6		2.7 [2]	1.0 [3]	1.0 [3]	2.7	1	
Near road - Outdoors ' 7		2.7 [2]	1.0 [3]	1.0 [3]	2.7	1	
Motorcycle - Outdoors ' 8		2.7 [2]	1.0 [3]	1.0 [3]	2.7	1	
Service station - Indoors ' 9		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Service station - Outdoors ' 10		2.7 [2]	1.0 [3]	1.0 [3]	2.7	1	
Residential garage - Indoors ' 11		1.0 [3]	1.0 [3]	0.81 [2]	0.81	0.81	
Other repair shop - Indoors ' 12		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Residence (no CO source) - Indoors' 13		1.0 [3]	1.0 [3]	0.81 [2]	0.81	0.81	
Residence (gas stove) - Indoors ' 14		1.0 [3]	1.0 [3]	0.81 [2]	0.81	0.81	
Residence (attached garage) - Indoors' 15		1.0 [3]	1.0 [3]	0.81 [2]	0.81	0.81	
Residence (stove and garage)- Indoors' 16		1.0 [3]	1.0 [3]	0.81 [2]	0.81	0.81	
Office - Indoors ' 17		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Store - Indoors ' 18		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Restaurant - Indoors ' 19		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Manufacturing facility - Indoors ' 20		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
School - Indoors ' 21		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Church- Indoors ' 22		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Shopping mall - Indoors ' 23		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Auditorium - Indoors ' 24		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Health care facility - Indoors ' 25		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Other public building - Indoors ' 26		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Other location - Indoors ' 27		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Not specified - Indoors ' 28		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
Train/subway - In vehicle ' 36		3.5 [2]	1.0 [3]	0.90 [2]	3.15	0.9	
Airplane - In vehicle ' 37		0.0 [3]	0.0 [3]	0.90 [2]	0	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b Onroad vehicle source category (see text).

^c Major, area, and nonroad-mobile source categories (see text).

^d The MULT factor is the product of the PROX factor and the PEN factor for the onroad vehicle source category and for the major, area, and nonroad-mobile source categories for this pollutant.

Formula: Microenvironmental concentration, $\mu\text{g}/\text{m}^3 = \text{ADD} + (\text{PROX})(\text{PEN})(\text{monitor concentration, } \mu\text{g}/\text{m}^3)$.

Abbreviations: ADD = additive factor; PROX = proximity factor; PEN = penetration factor; MULT = PROX \times PEN.

Pollutant: Acrylonitrile (#3) HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^{a, b}	PEN [Data Code] ^a	MULT	Reference Sources
Car - In vehicle ' 1		1.0 [3]	0.88 [2]	0.88	
Bus - In vehicle ' 2		1.0 [3]	0.88 [2]	0.88	
Truck - In vehicle ' 3		1.0 [3]	0.88 [2]	0.88	
Other - In vehicle ' 4		1.0 [3]	0.88 [2]	0.88	
Public garage - Indoors ' 5		1.0 [3]	0.81 [2]	0.81	
Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
Service station - Indoors ' 9		1.0 [3]	0.81 [2]	0.81	
Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
Residential garage - Indoors ' 11		1.0 [3]	0.72 [2]	0.72	
Other repair shop - Indoors ' 12		1.0 [3]	0.81 [2]	0.81	
Residence (no CO source) - Indoors ' 13		1.0 [3]	0.72 [2]	0.72	
Residence (gas stove) - Indoors ' 14		1.0 [3]	0.72 [2]	0.72	
Residence (attached garage) - Indoors ' 15		1.0 [3]	0.72 [2]	0.72	
Residence (stove and garage)- Indoors ' 16		1.0 [3]	0.72 [2]	0.72	
Office - Indoors ' 17		1.0 [3]	0.81 [2]	0.81	
Store - Indoors ' 18		1.0 [3]	0.81 [2]	0.81	
Restaurant - Indoors ' 19		1.0 [3]	0.81 [2]	0.81	
Manufacturing facility - Indoors ' 20		1.0 [3]	0.81 [2]	0.81	
School - Indoors ' 21		1.0 [3]	0.81 [2]	0.81	
Church- Indoors ' 22		1.0 [3]	0.81 [2]	0.81	
Shopping mall - Indoors ' 23		1.0 [3]	0.81 [2]	0.81	
Auditorium - Indoors ' 24		1.0 [3]	0.81 [2]	0.81	
Health care facility - Indoors ' 25		1.0 [3]	0.81 [2]	0.81	
Other public building - Indoors ' 26		1.0 [3]	0.81 [2]	0.81	
Other location - Indoors ' 27		1.0 [3]	0.81 [2]	0.81	
Not specified - Indoors ' 28		1.0 [3]	0.81 [2]	0.81	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	

Pollutant: <u>Acrylonitrile</u> (#3) HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^{a, b}	PEN [Data Code] ^a	MUL T	Reference Sources
Train/subway - In vehicle ' 36		1.0 [3]	0.88 [2]	0.88	
Airplane - In vehicle ' 37		0.0 [3]	0.88 [2]	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

Pollutant: <u>Arsenic compnds</u> (#4) HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^{a, b}	PEN [Data Code] ^a	MUL T	Reference Sources
Car - In vehicle ' 1		1.0 [3]	0.88 [2]	0.88	
Bus - In vehicle ' 2		1.0 [3]	0.88 [2]	0.88	
Truck - In vehicle ' 3		1.0 [3]	0.88 [2]	0.88	
Other - In vehicle ' 4		1.0 [3]	0.88 [2]	0.88	
Public garage - Indoors ' 5		1.0 [3]	0.78 [2]	0.78	
Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
Service station - Indoors ' 9		1.0 [3]	0.78 [2]	0.78	
Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
Residential garage - Indoors ' 11		1.0 [3]	0.77 [2]	0.77	
Other repair shop - Indoors ' 12		1.0 [3]	0.78 [2]	0.78	
Residence (no CO source) - Indoors' 13		1.0 [3]	0.77 [2]	0.77	
Residence (gas stove) - Indoors ' 14		1.0 [3]	0.77 [2]	0.77	
Residence (attached garage) - Indoors' 15		1.0 [3]	0.77 [2]	0.77	
Residence (stove and garage)- Indoors' 16		1.0 [3]	0.77 [2]	0.77	
Office - Indoors ' 17		1.0 [3]	0.78 [2]	0.78	
Store - Indoors ' 18		1.0 [3]	0.78 [2]	0.78	
Restaurant - Indoors ' 19		1.0 [3]	0.78 [2]	0.78	
Manufacturing facility - Indoors ' 20		1.0 [3]	0.78 [2]	0.78	
School - Indoors ' 21		1.0 [3]	0.78 [2]	0.78	
Church- Indoors ' 22		1.0 [3]	0.78 [2]	0.78	
Shopping mall - Indoors ' 23		1.0 [3]	0.78 [2]	0.78	
Auditorium - Indoors ' 24		1.0 [3]	0.78 [2]	0.78	
Health care facility - Indoors ' 25		1.0 [3]	0.78 [2]	0.78	
Other public building - Indoors ' 26		1.0 [3]	0.78 [2]	0.78	
Other location - Indoors ' 27		1.0 [3]	0.78 [2]	0.78	
Not specified - Indoors ' 28		1.0 [3]	0.78 [2]	0.78	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	
Train/subway - In vehicle ' 36		1.0 [3]	0.88 [2]	0.88	
Airplane - In vehicle ' 37		0.0 [3]	0.88 [2]	0	

^a **Data Code:** 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

Pollutant: Benzene (#5) HAPEM ME ' Number	ADD µg/m ³	PROX [Data Code] ^a		PEN [Data Code] ^a	MULT = PROX × PEN		Reference Sources
		Onroad	Major, area, and nonroad ^c		Onroad	Major, area, and nonroad ^d	
Car - In vehicle ' 1		6.9 [1]	1.0 [3]	0.96 [1]	6.6	0.96	MZ 28
Bus - In vehicle ' 2		3.5 [1]	1.0 [3]	0.79 [1]	2.8	0.79	MZ 14 ^e , RA 7 ^f
Truck - In vehicle ' 3		5.2 [2]	1.0 [3]	0.88 [2]	4.6	0.88	
Other - In vehicle ' 4		5.2 [2]	1.0 [3]	0.88 [2]	4.6	0.88	
Public garage - Indoors ' 5		1.0 [3]	1.0 [3]	0.86 [1]	0.9	0.86	RA 24
Parking lot/garage - Outdoors ' 6		4.4 [2]	1.0 [3]	1.0 [3]	4.4	1	
Near road - Outdoors ' 7		4.4 [1]	1.0 [3]	1.0 [3]	4.4	1	MZ 28
Motorcycle - Outdoors ' 8		4.4 [2]	1.0 [3]	1.0 [3]	4.4	1	
Service station - Indoors ' 9		1.0 [3]	1.0 [3]	0.78 [2]	0.8	0.78	
Service station - Outdoors ' 10		4.4 [2]	1.0 [3]	1.0 [3]	4.4	1	
Residential garage - Indoors ' 11		1.0 [3]	1.0 [3]	0.77 [2]	0.8	0.77	
Other repair shop - Indoors ' 12		1.0 [3]	1.0 [3]	0.78 [2]	0.8	0.78	
Residence (no CO source) - Indoors' 13		1.0 [3]	1.0 [3]	0.88 [1]	0.9	0.88	MZ 2
Residence (gas stove) - Indoors ' 14		1.0 [3]	1.0 [3]	0.77 [2]	0.8	0.77	
Residence (attached garage) - Indoors' 15		1.0 [3]	1.0 [3]	1.0 [1]	1.0	1	TL 18
Residence (stove and garage)- Indoors' 16		1.0 [3]	1.0 [3]	0.77 [2]	0.8	0.77	
Office - Indoors ' 17		1.0 [3]	1.0 [3]	0.63 [1]	0.6	0.63	MZ 39
Store - Indoors ' 18		1.0 [3]	1.0 [3]	0.78 [2]	0.8	0.78	
Restaurant - Indoors ' 19		1.0 [3]	1.0 [3]	0.9 [1]	0.9	0.9	RA 35
Manufacturing facility - Indoors ' 20		1.0 [3]	1.0 [3]	0.78 [2]	0.8	0.78	
School - Indoors ' 21		1.0 [3]	1.0 [3]	0.7 [1]	0.7	0.7	MZ 1
Church- Indoors ' 22		1.0 [3]	1.0 [3]	0.78 [2]	0.8	0.78	
Shopping mall - Indoors ' 23		1.0 [3]	1.0 [3]	0.78 [2]	0.8	0.78	
Auditorium - Indoors ' 24		1.0 [3]	1.0 [3]	0.78 [2]	0.8	0.78	
Health care facility - Indoors ' 25		1.0 [3]	1.0 [3]	0.78 [2]	0.8	0.78	
Other public building - Indoors ' 26		1.0 [3]	1.0 [3]	0.78 [2]	0.8	0.78	
Other location - Indoors ' 27		1.0 [3]	1.0 [3]	0.78 [2]	0.8	0.78	
Not specified - Indoors ' 28		1.0 [3]	1.0 [3]	0.78 [2]	0.8	0.78	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1.0 [3]	1.0	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1.0 [3]	1.0	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1.0 [3]	1.0	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1.0 [3]	1.0	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1.0 [3]	1.0	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1.0 [3]	1.0	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1.0 [3]	1.0	1	
Train/subway - In vehicle ' 36		5.2 [2]	1.0 [3]	0.88 [2]	4.6	0.88	
Airplane - In vehicle ' 37		0.0 [3]	0.0 [3]	0.88 [2]	0.0	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b Onroad vehicle source category (see text).

^c Major, area, and nonroad-mobile source categories (see text).

^d The MULT factor is the product of the PROX factor and the PEN factor for the onroad vehicle source category and for the major, area, and nonroad-mobile source categories for this pollutant.

^e Reference used to derive PROX factor

^f Reference used to derive PEN factor

Formula: Microenvironmental concentration, $\mu\text{g}/\text{m}^3 = \text{ADD} + (\text{PROX})(\text{PEN})(\text{monitor concentration, } \mu\text{g}/\text{m}^3)$.

Abbreviations: ADD = additive factor; PROX = proximity factor; PEN = penetration factor; MULT = $\text{PROX} \times \text{PEN}$.

Pollutant: Beryllium cmpds (#6) HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^{a, b}	PEN [Data Code] ^a	MUL T	Reference Sources
Car - In vehicle ' 1		1.0 [3]	0.88 [2]	0.88	
Bus - In vehicle ' 2		1.0 [3]	0.88 [2]	0.88	
Truck - In vehicle ' 3		1.0 [3]	0.88 [2]	0.88	
Other - In vehicle ' 4		1.0 [3]	0.88 [2]	0.88	
Public garage - Indoors ' 5		1.0 [3]	0.78 [2]	0.78	
Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
Service station - Indoors ' 9		1.0 [3]	0.78 [2]	0.78	
Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
Residential garage - Indoors ' 11		1.0 [3]	0.77 [2]	0.77	
Other repair shop - Indoors ' 12		1.0 [3]	0.78 [2]	0.78	
Residence (no CO source) - Indoors' 13		1.0 [3]	0.77 [2]	0.77	
Residence (gas stove) - Indoors ' 14		1.0 [3]	0.77 [2]	0.77	
Residence (attached garage) - Indoors' 15		1.0 [3]	0.77 [2]	0.77	
Residence (stove and garage)- Indoors' 16		1.0 [3]	0.77 [2]	0.77	
Office - Indoors ' 17		1.0 [3]	0.78 [2]	0.78	
Store - Indoors ' 18		1.0 [3]	0.78 [2]	0.78	
Restaurant - Indoors ' 19		1.0 [3]	0.78 [2]	0.78	
Manufacturing facility - Indoors ' 20		1.0 [3]	0.78 [2]	0.78	
School - Indoors ' 21		1.0 [3]	0.78 [2]	0.78	
Church- Indoors ' 22		1.0 [3]	0.78 [2]	0.78	
Shopping mall - Indoors ' 23		1.0 [3]	0.78 [2]	0.78	
Auditorium - Indoors ' 24		1.0 [3]	0.78 [2]	0.78	
Health care facility - Indoors ' 25		1.0 [3]	0.78 [2]	0.78	
Other public building - Indoors ' 26		1.0 [3]	0.78 [2]	0.78	
Other location - Indoors ' 27		1.0 [3]	0.7 ^c [1]	0.7	MZ 24
Not specified - Indoors ' 28		1.0 [3]	0.78 [2]	0.78	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	
Train/subway - In vehicle ' 36		1.0 [3]	0.88 [2]	0.88	
Airplane - In vehicle ' 37		0.0 [3]	0.88 [2]	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

^c Indoor location is a laboratory

Pollutant: 1,3-butadiene (#7) HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^a		PEN [Data Code] ^a	MULT = PROX \times PEN		Reference Sources
		Onroad	Major, area, and nonroad ^c		Onroad	Major, area, and nonroad ^d	
Car - In vehicle ' 1		2.2 [1]	1.0 [3]	1.0 [1]	2.2	1	MZ 28
Bus - In vehicle ' 2		3.5 [2]	1.0 [3]	0.9 [1]	3.15	0.9	RA 7
Truck - In vehicle ' 3		2.8 [2]	1.0 [3]	0.90 [2]	2.52	0.9	
Other - In vehicle ' 4		2.8 [2]	1.0 [3]	0.90 [2]	2.52	0.9	
Public garage - Indoors ' 5		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Parking lot/garage - Outdoors ' 6		1.0 [2]	1.0 [3]	1.0 [3]	1	1	
Near road - Outdoors ' 7		1.0 [1]	1.0 [3]	1.0 [3]	1	1	MZ 28
Motorcycle - Outdoors ' 8		1.0 [2]	1.0 [3]	1.0 [3]	1	1	
Service station - Indoors ' 9		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Service station - Outdoors ' 10		1.0 [2]	1.0 [3]	1.0 [3]	1	1	
Residential garage - Indoors ' 11		1.0 [3]	1.0 [3]	0.81 [2]	0.81	0.81	
Other repair shop - Indoors ' 12		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Residence (no CO source) - Indoors' 13		1.0 [3]	1.0 [3]	0.81 [2]	0.81	0.81	
Residence (gas stove) - Indoors ' 14		1.0 [3]	1.0 [3]	0.81 [2]	0.81	0.81	
Residence (attached garage) - Indoors' 15		1.0 [3]	1.0 [3]	0.81 [2]	0.81	0.81	
Residence (stove and garage)- Indoors' 16		1.0 [3]	1.0 [3]	0.81 [2]	0.81	0.81	
Office - Indoors ' 17		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Store - Indoors ' 18		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Restaurant - Indoors ' 19		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Manufacturing facility - Indoors ' 20		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
School - Indoors ' 21		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Church- Indoors ' 22		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Shopping mall - Indoors ' 23		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Auditorium - Indoors ' 24		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Health care facility - Indoors ' 25		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Other public building - Indoors ' 26		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Other location - Indoors ' 27		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Not specified - Indoors ' 28		1.0 [3]	1.0 [3]	0.80 [2]	0.8	0.8	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
Train/subway - In vehicle ' 36		2.8 [2]	1.0 [3]	0.90 [2]	2.52	0.9	
Airplane - In vehicle ' 37		0.0 [3]	0.0 [3]	0.90 [2]	0	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b Onroad vehicle source category (see text).

^c Major, area, and nonroad-mobile source categories (see text).

^d The MULT factor is the product of the PROX factor and the PEN factor for the onroad vehicle source category and for the major, area, and nonroad-mobile source categories for this pollutant.

Formula: Microenvironmental concentration, $\mu\text{g}/\text{m}^3$ = ADD + (PROX)(PEN)(monitor concentration, $\mu\text{g}/\text{m}^3$).

Abbreviations: ADD = additive factor; PROX = proximity factor; PEN = penetration factor; MULT = $\text{PROX} \times \text{PEN}$.

Pollutant: Cadmium compounds (#8) HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^{a, b}	PEN [Data Code] ^a	MUL T	Reference Sources
Car - In vehicle ' 1		1.0 [3]	0.88 [2]	0.88	
Bus - In vehicle ' 2		1.0 [3]	0.88 [2]	0.88	
Truck - In vehicle ' 3		1.0 [3]	0.88 [2]	0.88	
Other - In vehicle ' 4		1.0 [3]	0.88 [2]	0.88	
Public garage - Indoors ' 5		1.0 [3]	0.78 [2]	0.78	
Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
Service station - Indoors ' 9		1.0 [3]	0.78 [2]	0.78	
Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
Residential garage - Indoors ' 11		1.0 [3]	0.77 [2]	0.77	
Other repair shop - Indoors ' 12		1.0 [3]	0.78 [2]	0.78	
Residence (no CO source) - Indoors' 13		1.0 [3]	0.77 [2]	0.77	
Residence (gas stove) - Indoors ' 14		1.0 [3]	0.77 [2]	0.77	
Residence (attached garage) - Indoors' 15		1.0 [3]	0.77 [2]	0.77	
Residence (stove and garage)- Indoors' 16		1.0 [3]	0.77 [2]	0.77	
Office - Indoors ' 17		1.0 [3]	0.78 [2]	0.78	
Store - Indoors ' 18		1.0 [3]	0.78 [2]	0.78	
Restaurant - Indoors ' 19		1.0 [3]	0.78 [2]	0.78	
Manufacturing facility - Indoors ' 20		1.0 [3]	0.78 [2]	0.78	
School - Indoors ' 21		1.0 [3]	0.78 [2]	0.78	
Church- Indoors ' 22		1.0 [3]	0.78 [2]	0.78	
Shopping mall - Indoors ' 23		1.0 [3]	0.78 [2]	0.78	
Auditorium - Indoors ' 24		1.0 [3]	0.78 [2]	0.78	
Health care facility - Indoors ' 25		1.0 [3]	0.78 [2]	0.78	
Other public building - Indoors ' 26		1.0 [3]	0.78 [2]	0.78	
Other location - Indoors ' 27		1.0 [3]	0.78 [2]	0.78	
Not specified - Indoors ' 28		1.0 [3]	0.78 [2]	0.78	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	
Train/subway - In vehicle ' 36		1.0 [3]	0.88 [2]	0.88	
Airplane - In vehicle ' 37		0.0 [3]	0.88 [2]	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

Pollutant: Carbon tetrachloride (#9) HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^{a, b}	PEN [Data Code] ^a	MUL T	Reference Sources
Car - In vehicle ' 1		1.0 [3]	0.88 [2]	0.88	
Bus - In vehicle ' 2		1.0 [3]	0.88 [2]	0.88	
Truck - In vehicle ' 3		1.0 [3]	0.88 [2]	0.88	
Other - In vehicle ' 4		1.0 [3]	0.88 [2]	0.88	
Public garage - Indoors ' 5		1.0 [3]	0.78 [2]	0.78	
Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
Service station - Indoors ' 9		1.0 [3]	0.78 [2]	0.78	
Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
Residential garage - Indoors ' 11		1.0 [3]	0.77 [2]	0.77	
Other repair shop - Indoors ' 12		1.0 [3]	0.78 [2]	0.78	
Residence (no CO source) - Indoors' 13		1.0 [3]	0.55 [1]	0.55	MZ 27
Residence (gas stove) - Indoors ' 14		1.0 [3]	0.77 [2]	0.77	
Residence (attached garage) - Indoors' 15		1.0 [3]	0.77 [2]	0.77	
Residence (stove and garage)- Indoors' 16		1.0 [3]	0.77 [2]	0.77	
Office - Indoors ' 17		1.0 [3]	0.78 [2]	0.78	
Store - Indoors ' 18		1.0 [3]	0.78 [2]	0.78	
Restaurant - Indoors ' 19		1.0 [3]	0.78 [2]	0.78	
Manufacturing facility - Indoors ' 20		1.0 [3]	0.78 [2]	0.78	
School - Indoors ' 21		1.0 [3]	0.78 [2]	0.78	
Church- Indoors ' 22		1.0 [3]	0.78 [2]	0.78	
Shopping mall - Indoors ' 23		1.0 [3]	0.78 [2]	0.78	
Auditorium - Indoors ' 24		1.0 [3]	0.78 [2]	0.78	
Health care facility - Indoors ' 25		1.0 [3]	0.78 [2]	0.78	
Other public building - Indoors ' 26		1.0 [3]	0.78 [2]	0.78	
Other location - Indoors ' 27		1.0 [3]	0.78 [2]	0.78	
Not specified - Indoors ' 28		1.0 [3]	0.78 [2]	0.78	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	
Train/subway - In vehicle ' 36		1.0 [3]	0.88 [2]	0.88	
Airplane - In vehicle ' 37		0.0 [3]	0.88 [2]	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

Pollutant: Chloroform (#10) HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^{a, b}	PEN [Data Code] ^a	MUL T	Reference Sources
Car - In vehicle ' 1		1.0 [3]	0.88 [2]	0.88	
Bus - In vehicle ' 2		1.0 [3]	0.88 [2]	0.88	
Truck - In vehicle ' 3		1.0 [3]	0.88 [2]	0.88	
Other - In vehicle ' 4		1.0 [3]	0.88 [2]	0.88	
Public garage - Indoors ' 5		1.0 [3]	0.78 [2]	0.78	
Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
Service station - Indoors ' 9		1.0 [3]	0.78 [2]	0.78	
Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
Residential garage - Indoors ' 11		1.0 [3]	0.77 [2]	0.77	
Other repair shop - Indoors ' 12		1.0 [3]	0.78 [2]	0.78	
Residence (no CO source) - Indoors' 13		1.0 [3]	0.85 [1]	0.85	MZ 38
Residence (gas stove) - Indoors ' 14		1.0 [3]	0.77 [2]	0.77	
Residence (attached garage) - Indoors' 15		1.0 [3]	0.77 [2]	0.77	
Residence (stove and garage)- Indoors' 16		1.0 [3]	0.77 [2]	0.77	
Office - Indoors ' 17		1.0 [3]	0.78 [2]	0.78	
Store - Indoors ' 18		1.0 [3]	0.78 [2]	0.78	
Restaurant - Indoors ' 19		1.0 [3]	0.78 [2]	0.78	
Manufacturing facility - Indoors ' 20		1.0 [3]	0.78 [2]	0.78	
School - Indoors ' 21		1.0 [3]	0.78 [2]	0.78	
Church- Indoors ' 22		1.0 [3]	0.78 [2]	0.78	
Shopping mall - Indoors ' 23		1.0 [3]	0.78 [2]	0.78	
Auditorium - Indoors ' 24		1.0 [3]	0.78 [2]	0.78	
Health care facility - Indoors ' 25		1.0 [3]	0.78 [2]	0.78	
Other public building - Indoors ' 26		1.0 [3]	0.78 [2]	0.78	
Other location - Indoors ' 27		1.0 [3]	0.78 [2]	0.78	
Not specified - Indoors ' 28		1.0 [3]	0.78 [2]	0.78	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	
Train/subway - In vehicle ' 36		1.0 [3]	0.88 [2]	0.88	
Airplane - In vehicle ' 37		0.0 [3]	0.88 [2]	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

Pollutant: Chromium compounds (#11) HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^{a, b}	PEN [Data Code] ^a	MUL T	Reference Sources
Car - In vehicle ' 1		1.0 [3]	0.88 [2]	0.88	
Bus - In vehicle ' 2		1.0 [3]	0.88 [2]	0.88	
Truck - In vehicle ' 3		1.0 [3]	0.88 [2]	0.88	
Other - In vehicle ' 4		1.0 [3]	0.88 [2]	0.88	
Public garage - Indoors ' 5		1.0 [3]	0.78 [2]	0.78	
Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
Service station - Indoors ' 9		1.0 [3]	0.78 [2]	0.78	
Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
Residential garage - Indoors ' 11		1.0 [3]	0.77 [2]	0.77	
Other repair shop - Indoors ' 12		1.0 [3]	0.78 [2]	0.78	
Residence (no CO source) - Indoors' 13		1.0 [3]	0.35 [1]	0.35	TL 9
Residence (gas stove) - Indoors ' 14		1.0 [3]	0.77 [2]	0.77	
Residence (attached garage) - Indoors' 15		1.0 [3]	0.77 [2]	0.77	
Residence (stove and garage)- Indoors' 16		1.0 [3]	0.77 [2]	0.77	
Office - Indoors ' 17		1.0 [3]	0.78 [2]	0.78	
Store - Indoors ' 18		1.0 [3]	0.78 [2]	0.78	
Restaurant - Indoors ' 19		1.0 [3]	0.78 [2]	0.78	
Manufacturing facility - Indoors ' 20		1.0 [3]	0.31 (Cr^{6+}); 0.62 Tot (Cr) [1]	0.31	TL 11
School - Indoors ' 21		1.0 [3]	0.78 [2]	0.78	
Church- Indoors ' 22		1.0 [3]	0.78 [2]	0.78	
Shopping mall - Indoors ' 23		1.0 [3]	0.78 [2]	0.78	
Auditorium - Indoors ' 24		1.0 [3]	0.78 [2]	0.78	
Health care facility - Indoors ' 25		1.0 [3]	0.78 [2]	0.78	
Other public building - Indoors ' 26		1.0 [3]	0.78 [2]	0.78	
Other location - Indoors ' 27		1.0 [3]	0.78 [2]	0.78	
Not specified - Indoors ' 28		1.0 [3]	0.78 [2]	0.78	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	
Train/subway - In vehicle ' 36		1.0 [3]	0.88 [2]	0.88	
Airplane - In vehicle ' 37		0.0 [3]	0.88 [2]	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

Pollutant: <u>Coke oven emissions</u> (#12) HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^{a, b}	PEN [Data Code] ^a	MUL T	Reference Sources
Car - In vehicle ' 1		1.0 [3]			
Bus - In vehicle ' 2		1.0 [3]			
Truck - In vehicle ' 3		1.0 [3]			
Other - In vehicle ' 4		1.0 [3]			
Public garage - Indoors ' 5		1.0 [3]			
Parking lot/garage - Outdoors ' 6		1.0 [3]			
Near road - Outdoors ' 7		1.0 [3]			
Motorcycle - Outdoors ' 8		1.0 [3]			
Service station - Indoors ' 9		1.0 [3]			
Service station - Outdoors ' 10		1.0 [3]			
Residential garage - Indoors ' 11		1.0 [3]			
Other repair shop - Indoors ' 12		1.0 [3]			
Residence (no CO source) - Indoors' 13		1.0 [3]			
Residence (gas stove) - Indoors ' 14		1.0 [3]			
Residence (attached garage) - Indoors' 15		1.0 [3]			
Residence (stove and garage)- Indoors' 16		1.0 [3]			
Office - Indoors ' 17		1.0 [3]			
Store - Indoors ' 18		1.0 [3]			
Restaurant - Indoors ' 19		1.0 [3]			
Manufacturing facility - Indoors ' 20		1.0 [3]			
School - Indoors ' 21		1.0 [3]			
Church- Indoors ' 22		1.0 [3]			
Shopping mall - Indoors ' 23		1.0 [3]			
Auditorium - Indoors ' 24		1.0 [3]			
Health care facility - Indoors ' 25		1.0 [3]			
Other public building - Indoors ' 26		1.0 [3]			
Other location - Indoors ' 27		1.0 [3]			
Not specified - Indoors ' 28		1.0 [3]			
Construction site - Outdoors ' 29		1.0 [3]			
Residential grounds - Outdoors ' 30		1.0 [3]			
School grounds - Outdoors ' 31		1.0 [3]			
Sports arena - Outdoors ' 32		1.0 [3]			
Park/golf course - Outdoors ' 33		1.0 [3]			
Other location - Outdoors ' 34		1.0 [3]			
Not specified - Outdoors ' 35		1.0 [3]			
Train/subway - In vehicle ' 36		1.0 [3]			
Airplane - In vehicle ' 37		0.0 [3]			

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

Pollutant: 1,2-dichloroethane (ethylene dichloride) (#13)	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^{a, b}	PEN [Data Code] ^a	MUL T	Reference Sources
HAPEM ME ' Number					
Car - In vehicle ' 1		1.0 [3]	0.88 [2]	0.88	
Bus - In vehicle ' 2		1.0 [3]	0.88 [2]	0.88	
Truck - In vehicle ' 3		1.0 [3]	0.88 [2]	0.88	
Other - In vehicle ' 4		1.0 [3]	0.88 [2]	0.88	
Public garage - Indoors ' 5		1.0 [3]	0.78 [2]	0.78	
Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
Service station - Indoors ' 9		1.0 [3]	0.78 [2]	0.78	
Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
Residential garage - Indoors ' 11		1.0 [3]	0.77 [2]	0.77	
Other repair shop - Indoors ' 12		1.0 [3]	0.78 [2]	0.78	
Residence (no CO source) - Indoors' 13		1.0 [3]	1.0 [1]	1	MZ 38
Residence (gas stove) - Indoors ' 14		1.0 [3]	0.77 [2]	0.77	
Residence (attached garage) - Indoors' 15		1.0 [3]	0.77 [2]	0.77	
Residence (stove and garage)- Indoors' 16		1.0 [3]	0.77 [2]	0.77	
Office - Indoors ' 17		1.0 [3]	0.78 [2]	0.78	
Store - Indoors ' 18		1.0 [3]	0.78 [2]	0.78	
Restaurant - Indoors ' 19		1.0 [3]	0.78 [2]	0.78	
Manufacturing facility - Indoors ' 20		1.0 [3]	0.78 [2]	0.78	
School - Indoors ' 21		1.0 [3]	0.78 [2]	0.78	
Church- Indoors ' 22		1.0 [3]	0.78 [2]	0.78	
Shopping mall - Indoors ' 23		1.0 [3]	0.78 [2]	0.78	
Auditorium - Indoors ' 24		1.0 [3]	0.78 [2]	0.78	
Health care facility - Indoors ' 25		1.0 [3]	0.78 [2]	0.78	
Other public building - Indoors ' 26		1.0 [3]	0.78 [2]	0.78	
Other location - Indoors ' 27		1.0 [3]	0.78 [2]	0.78	
Not specified - Indoors ' 28		1.0 [3]	0.78 [2]	0.78	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	
Train/subway - In vehicle ' 36		1.0 [3]	0.88 [2]	0.88	
Airplane - In vehicle ' 37		0.0 [3]	0.88 [2]	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

Pollutant: 1,3-dichloropropene (#14) HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^{a, b}	PEN [Data Code] ^a	MUL T	Reference Sources
Car - In vehicle ' 1		1.0 [3]	0.90 [2]	0.9	
Bus - In vehicle ' 2		1.0 [3]	0.90 [2]	0.9	
Truck - In vehicle ' 3		1.0 [3]	0.90 [2]	0.9	
Other - In vehicle ' 4		1.0 [3]	0.90 [2]	0.9	
Public garage - Indoors ' 5		1.0 [3]	0.80 [2]	0.8	
Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
Service station - Indoors ' 9		1.0 [3]	0.80 [2]	0.8	
Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
Residential garage - Indoors ' 11		1.0 [3]	0.81 [2]	0.81	
Other repair shop - Indoors ' 12		1.0 [3]	0.80 [2]	0.8	
Residence (no CO source) - Indoors' 13		1.0 [3]	0.81 [1]	0.81	TL 3
Residence (gas stove) - Indoors ' 14		1.0 [3]	0.81 [2]	0.81	
Residence (attached garage) - Indoors' 15		1.0 [3]	0.81 [2]	0.81	
Residence (stove and garage)- Indoors' 16		1.0 [3]	0.81 [2]	0.81	
Office - Indoors ' 17		1.0 [3]	0.80 [2]	0.8	
Store - Indoors ' 18		1.0 [3]	0.80 [2]	0.8	
Restaurant - Indoors ' 19		1.0 [3]	0.80 [2]	0.8	
Manufacturing facility - Indoors ' 20		1.0 [3]	0.80 [2]	0.8	
School - Indoors ' 21		1.0 [3]	0.80 [2]	0.8	
Church- Indoors ' 22		1.0 [3]	0.80 [2]	0.8	
Shopping mall - Indoors ' 23		1.0 [3]	0.80 [2]	0.8	
Auditorium - Indoors ' 24		1.0 [3]	0.80 [2]	0.8	
Health care facility - Indoors ' 25		1.0 [3]	0.80 [2]	0.8	
Other public building - Indoors ' 26		1.0 [3]	0.80 [2]	0.8	
Other location - Indoors ' 27		1.0 [3]	0.80 [2]	0.8	
Not specified - Indoors ' 28		1.0 [3]	0.80 [2]	0.8	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	
Train/subway - In vehicle ' 36		1.0 [3]	0.90 [2]	0.9	
Airplane - In vehicle ' 37		0.0 [3]	0.90 [2]	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

Pollutant: Ethylene dibromide (dibromoethane) (#15)	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code]^{a, b}	PEN [Data Code]^a	MUL T	Reference Sources
HAPEM ME ' Number					
Car - In vehicle ' 1		1.0 [3]	0.88 [2]	0.88	
Bus - In vehicle ' 2		1.0 [3]	0.88 [2]	0.88	
Truck - In vehicle ' 3		1.0 [3]	0.88 [2]	0.88	
Other - In vehicle ' 4		1.0 [3]	0.88 [2]	0.88	
Public garage - Indoors ' 5		1.0 [3]	0.78 [2]	0.78	
Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
Service station - Indoors ' 9		1.0 [3]	0.78 [2]	0.78	
Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
Residential garage - Indoors ' 11		1.0 [3]	0.77 [2]	0.77	
Other repair shop - Indoors ' 12		1.0 [3]	0.78 [2]	0.78	
Residence (no CO source) - Indoors' 13		1.0 [3]	0.77 [2]	0.77	
Residence (gas stove) - Indoors ' 14		1.0 [3]	0.77 [2]	0.77	
Residence (attached garage) - Indoors' 15		1.0 [3]	0.77 [2]	0.77	
Residence (stove and garage)- Indoors' 16		1.0 [3]	0.77 [2]	0.77	
Office - Indoors ' 17		1.0 [3]	0.78 [2]	0.78	
Store - Indoors ' 18		1.0 [3]	0.78 [2]	0.78	
Restaurant - Indoors ' 19		1.0 [3]	0.78 [2]	0.78	
Manufacturing facility - Indoors ' 20		1.0 [3]	0.78 [2]	0.78	
School - Indoors ' 21		1.0 [3]	0.78 [2]	0.78	
Church- Indoors ' 22		1.0 [3]	0.78 [2]	0.78	
Shopping mall - Indoors ' 23		1.0 [3]	0.78 [2]	0.78	
Auditorium - Indoors ' 24		1.0 [3]	0.78 [2]	0.78	
Health care facility - Indoors ' 25		1.0 [3]	0.78 [2]	0.78	
Other public building - Indoors ' 26		1.0 [3]	0.78 [2]	0.78	
Other location - Indoors ' 27		1.0 [3]	0.78 [2]	0.78	
Not specified - Indoors ' 28		1.0 [3]	0.78 [2]	0.78	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	
Train/subway - In vehicle ' 36		1.0 [3]	0.88 [2]	0.88	
Airplane - In vehicle ' 37		0.0 [3]	0.88 [2]	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

Pollutant: Ethylene oxide (#16) HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^{a, b}	PEN [Data Code] ^a	MUL T	Reference Sources
Car - In vehicle ' 1		1.0 [3]	0.88 [2]	0.88	
Bus - In vehicle ' 2		1.0 [3]	0.88 [2]	0.88	
Truck - In vehicle ' 3		1.0 [3]	0.88 [2]	0.88	
Other - In vehicle ' 4		1.0 [3]	0.88 [2]	0.88	
Public garage - Indoors ' 5		1.0 [3]	0.78 [2]	0.78	
Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
Service station - Indoors ' 9		1.0 [3]	0.78 [2]	0.78	
Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
Residential garage - Indoors ' 11		1.0 [3]	0.77 [2]	0.77	
Other repair shop - Indoors ' 12		1.0 [3]	0.78 [2]	0.78	
Residence (no CO source) - Indoors' 13		1.0 [3]	0.77 [2]	0.77	
Residence (gas stove) - Indoors ' 14		1.0 [3]	0.77 [2]	0.77	
Residence (attached garage) - Indoors' 15		1.0 [3]	0.77 [2]	0.77	
Residence (stove and garage)- Indoors' 16		1.0 [3]	0.77 [2]	0.77	
Office - Indoors ' 17		1.0 [3]	0.78 [2]	0.78	
Store - Indoors ' 18		1.0 [3]	0.78 [2]	0.78	
Restaurant - Indoors ' 19		1.0 [3]	0.78 [2]	0.78	
Manufacturing facility - Indoors ' 20		1.0 [3]	0.78 [2]	0.78	
School - Indoors ' 21		1.0 [3]	0.78 [2]	0.78	
Church- Indoors ' 22		1.0 [3]	0.78 [2]	0.78	
Shopping mall - Indoors ' 23		1.0 [3]	0.78 [2]	0.78	
Auditorium - Indoors ' 24		1.0 [3]	0.78 [2]	0.78	
Health care facility - Indoors ' 25		1.0 [3]	0.78 [2]	0.78	
Other public building - Indoors ' 26		1.0 [3]	0.78 [2]	0.78	
Other location - Indoors ' 27		1.0 [3]	0.78 [2]	0.78	
Not specified - Indoors ' 28		1.0 [3]	0.78 [2]	0.78	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	
Train/subway - In vehicle ' 36		1.0 [3]	0.88 [2]	0.88	
Airplane - In vehicle ' 37		0.0 [3]	0.88 [2]	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

Pollutant: Formaldehyde (#17) HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^a		PEN [Data Code] ^a	MULT = PROX \times PEN		Reference Sources
		Onroad	Major, area, and nonroad ^c		Onroad	Major, area, and nonroad ^d	
Car - In vehicle' 1		3.5 [2]	1.0 [3]	0.88 [2]	3.08	0.88	
Bus - In vehicle' 2		3.5 [2]	1.0 [3]	0.88 [2]	3.08	0.88	
Truck - In vehicle' 3		3.5 [2]	1.0 [3]	0.88 [2]	3.08	0.88	
Other - In vehicle' 4		3.5 [2]	1.0 [3]	0.88 [2]	3.08	0.88	
Public garage - Indoors' 5		1.0 [3]	1.0 [3]	0.81 [2]	0.81	0.81	
Parking lot/garage - Outdoors' 6		2.7 [2]	1.0 [3]	1.0 [3]	2.7	1	
Near road - Outdoors' 7		2.7 [2]	1.0 [3]	1.0 [3]	2.7	1	
Motorcycle - Outdoors' 8		2.7 [2]	1.0 [3]	1.0 [3]	2.7	1	
Service station - Indoors' 9		1.0 [3]	1.0 [3]	0.81 [2]	0.81	0.81	
Service station - Outdoors' 10		2.7 [2]	1.0 [3]	1.0 [3]	2.7	1	
Residential garage - Indoors' 11		1.0 [3]	1.0 [3]	0.72 [2]	0.72	0.72	
Other repair shop - Indoors' 12		1.0 [3]	1.0 [3]	0.81 [2]	0.81	0.81	
Residence (no CO source) - Indoors' 13		1.0 [3]	1.0 [3]	0.5 [1]	0.5	0.5	MZ 15
Residence (gas stove) - Indoors' 14		1.0 [3]	1.0 [3]	0.72 [2]	0.72	0.72	
Residence (attached garage) - Indoors' 15		1.0 [3]	1.0 [3]	0.72 [2]	0.72	0.72	
Residence (stove and garage)- Indoors' 16		1.0 [3]	1.0 [3]	0.72 [2]	0.72	0.72	
Office - Indoors ' 17		1.0 [3]	1.0 [3]	0.81 [2]	0.81	0.81	
Store - Indoors ' 18		1.0 [3]	1.0 [3]	0.81 [2]	0.81	0.81	
Restaurant - Indoors ' 19		1.0 [3]	1.0 [3]	0.81 [2]	0.81	0.81	
Manufacturing facility - Indoors ' 20		1.0 [3]	1.0 [3]	0.81 [2]	0.81	0.81	
School - Indoors ' 21		1.0 [3]	1.0 [3]	0.81 [2]	0.81	0.81	
Church- Indoors' 22		1.0 [3]	1.0 [3]	0.81 [2]	0.81	0.81	
Shopping mall - Indoors' 23		1.0 [3]	1.0 [3]	0.81 [2]	0.81	0.81	
Auditorium - Indoors ' 24		1.0 [3]	1.0 [3]	0.81 [2]	0.81	0.81	
Health care facility - Indoors' 25		1.0 [3]	1.0 [3]	0.81 [2]	0.81	0.81	
Other public building - Indoors' 26		1.0 [3]	1.0 [3]	0.81 [2]	0.81	0.81	
Other location - Indoors' 27		1.0 [3]	1.0 [3]	0.81 [2]	0.81	0.81	
Not specified - Indoors' 28		1.0 [3]	1.0 [3]	0.81 [2]	0.81	0.81	
Construction site - Outdoors' 29		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
Residential grounds - Outdoors' 30		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
School grounds - Outdoors' 31		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
Sports arena - Outdoors' 32		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
Park/golf course - Outdoors' 33		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
Other location - Outdoors' 34		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
Not specified - Outdoors' 35		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
Train/subway - In vehicle' 36		3.5 [2]	1.0 [3]	0.88 [2]	3.08	0.88	
Airplane - In vehicle' 37		0.0 [3]	0.0 [3]	0.88 [2]	0	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b Onroad vehicle source category (see text).

^c Major, area, and nonroad-mobile source categories (see text).

^d The MULT factor is the product of the PROX factor and the PEN factor for the onroad vehicle source category and for the major, area, and nonroad-mobile source categories for this pollutant.

Formula: Microenvironmental concentration, $\mu\text{g}/\text{m}^3$ = ADD + (PROX)(PEN)(monitor concentration, $\mu\text{g}/\text{m}^3$).

Abbreviations: ADD = additive factor; PROX = proximity factor; PEN = penetration factor; MULT = PROX × PEN.

Pollutant: Hexachlorobenzene (#18) HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^{a, b}	PEN [Data Code] ^a	MULT	Reference Sources
Car - In vehicle ' 1		1.0 [3]	0.88 [2]	0.88	
Bus - In vehicle ' 2		1.0 [3]	0.88 [2]	0.88	
Truck - In vehicle ' 3		1.0 [3]	0.88 [2]	0.88	
Other - In vehicle ' 4		1.0 [3]	0.88 [2]	0.88	
Public garage - Indoors ' 5		1.0 [3]	0.78 [2]	0.78	
Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
Service station - Indoors ' 9		1.0 [3]	0.78 [2]	0.78	
Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
Residential garage - Indoors ' 11		1.0 [3]	0.77 [2]	0.77	
Other repair shop - Indoors ' 12		1.0 [3]	0.78 [2]	0.78	
Residence (no CO source) - Indoors' 13		1.0 [3]	0.82 [1]	0.82	TL 3
Residence (gas stove) - Indoors ' 14		1.0 [3]	0.77 [2]	0.77	
Residence (attached garage) - Indoors' 15		1.0 [3]	0.77 [2]	0.77	
Residence (stove and garage)- Indoors' 16		1.0 [3]	0.77 [2]	0.77	
Office - Indoors ' 17		1.0 [3]	0.78 [2]	0.78	
Store - Indoors ' 18		1.0 [3]	0.78 [2]	0.78	
Restaurant - Indoors ' 19		1.0 [3]	0.78 [2]	0.78	
Manufacturing facility - Indoors ' 20		1.0 [3]	0.78 [2]	0.78	
School - Indoors ' 21		1.0 [3]	0.78 [2]	0.78	
Church- Indoors ' 22		1.0 [3]	0.78 [2]	0.78	
Shopping mall - Indoors ' 23		1.0 [3]	0.78 [2]	0.78	
Auditorium - Indoors ' 24		1.0 [3]	0.78 [2]	0.78	
Health care facility - Indoors ' 25		1.0 [3]	0.78 [2]	0.78	
Other public building - Indoors ' 26		1.0 [3]	0.78 [2]	0.78	
Other location - Indoors ' 27		1.0 [3]	0.78 [2]	0.78	
Not specified - Indoors ' 28		1.0 [3]	0.78 [2]	0.78	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	
Train/subway - In vehicle ' 36		1.0 [3]	0.88 [2]	0.88	
Airplane - In vehicle ' 37		0.0 [3]	0.88 [2]	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

Pollutant: Hydrazine (#19) HAPEM ME ' Number	ADD (∞g/m³)	PROX [Data Code] ^{a, b}	PEN [Data Code] ^a	MUL T	Reference Sources
Car - In vehicle ' 1		1.0 [3]	0.90 [2]	0.9	
Bus - In vehicle ' 2		1.0 [3]	0.90 [2]	0.9	
Truck - In vehicle ' 3		1.0 [3]	0.90 [2]	0.9	
Other - In vehicle ' 4		1.0 [3]	0.90 [2]	0.9	
Public garage - Indoors ' 5		1.0 [3]	0.80 [2]	0.8	
Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
Service station - Indoors ' 9		1.0 [3]	0.80 [2]	0.8	
Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
Residential garage - Indoors ' 11		1.0 [3]	0.81 [2]	0.81	
Other repair shop - Indoors ' 12		1.0 [3]	0.80 [2]	0.8	
Residence (no CO source) - Indoors' 13		1.0 [3]	0.81 [2]	0.81	
Residence (gas stove) - Indoors ' 14		1.0 [3]	0.81 [2]	0.81	
Residence (attached garage) - Indoors' 15		1.0 [3]	0.81 [2]	0.81	
Residence (stove and garage)- Indoors' 16		1.0 [3]	0.81 [2]	0.81	
Office - Indoors ' 17		1.0 [3]	0.80 [2]	0.8	
Store - Indoors ' 18		1.0 [3]	0.80 [2]	0.8	
Restaurant - Indoors ' 19		1.0 [3]	0.80 [2]	0.8	
Manufacturing facility - Indoors ' 20		1.0 [3]	0.80 [2]	0.8	
School - Indoors ' 21		1.0 [3]	0.80 [2]	0.8	
Church- Indoors ' 22		1.0 [3]	0.80 [2]	0.8	
Shopping mall - Indoors ' 23		1.0 [3]	0.80 [2]	0.8	
Auditorium - Indoors ' 24		1.0 [3]	0.80 [2]	0.8	
Health care facility - Indoors ' 25		1.0 [3]	0.80 [2]	0.8	
Other public building - Indoors ' 26		1.0 [3]	0.80 [2]	0.8	
Other location - Indoors ' 27		1.0 [3]	0.80 [2]	0.8	
Not specified - Indoors ' 28		1.0 [3]	0.80 [2]	0.8	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	
Train/subway - In vehicle ' 36		1.0 [3]	0.90 [2]	0.9	
Airplane - In vehicle ' 37		0.0 [3]	0.90 [2]	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

Pollutant: <u>Lead compounds - organic</u> (#20)	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^{a, b}	PEN [Data Code] ^a	MUL T	Reference Sources
HAPEM ME ' Number					
Car - In vehicle ' 1		1.0 [3]	0.88 [2]	0.88	
Bus - In vehicle ' 2		1.0 [3]	0.88 [2]	0.88	
Truck - In vehicle ' 3		1.0 [3]	0.88 [2]	0.88	
Other - In vehicle ' 4		1.0 [3]	0.88 [2]	0.88	
Public garage - Indoors ' 5		1.0 [3]	0.78 [2]	0.78	
Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
Service station - Indoors ' 9		1.0 [3]	0.78 [2]	0.78	
Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
Residential garage - Indoors ' 11		1.0 [3]	0.77 [2]	0.77	
Other repair shop - Indoors ' 12		1.0 [3]	0.78 [2]	0.78	
Residence (no CO source) - Indoors' 13		1.0 [3]	0.77 [2]	0.77	
Residence (gas stove) - Indoors ' 14		1.0 [3]	0.77 [2]	0.77	
Residence (attached garage) - Indoors' 15		1.0 [3]	0.77 [2]	0.77	
Residence (stove and garage)- Indoors' 16		1.0 [3]	0.77 [2]	0.77	
Office - Indoors ' 17		1.0 [3]	0.78 [2]	0.78	
Store - Indoors ' 18		1.0 [3]	0.78 [2]	0.78	
Restaurant - Indoors ' 19		1.0 [3]	0.78 [2]	0.78	
Manufacturing facility - Indoors ' 20		1.0 [3]	0.78 [2]	0.78	
School - Indoors ' 21		1.0 [3]	0.78 [2]	0.78	
Church- Indoors ' 22		1.0 [3]	0.78 [2]	0.78	
Shopping mall - Indoors ' 23		1.0 [3]	0.78 [2]	0.78	
Auditorium - Indoors ' 24		1.0 [3]	0.78 [2]	0.78	
Health care facility - Indoors ' 25		1.0 [3]	0.78 [2]	0.78	
Other public building - Indoors ' 26		1.0 [3]	0.78 [2]	0.78	
Other location - Indoors ' 27		1.0 [3]	0.78 [2]	0.78	
Not specified - Indoors ' 28		1.0 [3]	0.78 [2]	0.78	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	
Train/subway - In vehicle ' 36		1.0 [3]	0.88 [2]	0.88	
Airplane - In vehicle ' 37		0.0 [3]	0.88 [2]	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

Pollutant: <u>Lead compounds - inorganic</u> (#21)	HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^{a, b}	PEN [Data Code] ^a	MUL T	Reference Sources
	Car - In vehicle ' 1		1.0 [3]	0.88 [2]	0.88	
	Bus - In vehicle ' 2		1.0 [3]	0.88 [2]	0.88	
	Truck - In vehicle ' 3		1.0 [3]	0.88 [2]	0.88	
	Other - In vehicle ' 4		1.0 [3]	0.88 [2]	0.88	
	Public garage - Indoors ' 5		1.0 [3]	0.78 [2]	0.78	
	Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
	Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
	Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
	Service station - Indoors ' 9		1.0 [3]	0.78 [2]	0.78	
	Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
	Residential garage - Indoors ' 11		1.0 [3]	0.77 [2]	0.77	
	Other repair shop - Indoors ' 12		1.0 [3]	0.78 [2]	0.78	
	Residence (no CO source) - Indoors' 13		1.0 [3]	0.91 ^c [1]	0.91	RA 29, TL12
	Residence (gas stove) - Indoors ' 14		1.0 [3]	0.77 [2]	0.77	
	Residence (attached garage) - Indoors' 15		1.0 [3]	0.77 [2]	0.77	
	Residence (stove and garage)- Indoors' 16		1.0 [3]	0.77 [2]	0.77	
	Office - Indoors ' 17		1.0 [3]	0.86 [1]	0.86	TL 8
	Store - Indoors ' 18		1.0 [3]	0.78 [2]	0.78	
	Restaurant - Indoors ' 19		1.0 [3]	0.78 [2]	0.78	
	Manufacturing facility - Indoors ' 20		1.0 [3]	0.78 [2]	0.78	
	School - Indoors ' 21		1.0 [3]	0.78 [2]	0.78	
	Church- Indoors ' 22		1.0 [3]	0.78 [2]	0.78	
	Shopping mall - Indoors ' 23		1.0 [3]	0.78 [2]	0.78	
	Auditorium - Indoors ' 24		1.0 [3]	0.78 [2]	0.78	
	Health care facility - Indoors ' 25		1.0 [3]	0.78 [2]	0.78	
	Other public building - Indoors ' 26		1.0 [3]	0.63 [1]	0.63	TL 12
	Other location - Indoors ' 27		1.0 [3]	0.78 [2]	0.78	
	Not specified - Indoors ' 28		1.0 [3]	0.78 [2]	0.78	
	Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
	Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
	School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
	Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
	Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
	Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
	Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	
	Train/subway - In vehicle ' 36		1.0 [3]	0.88 [2]	0.88	
	Airplane - In vehicle ' 37		0.0 [3]	0.88 [2]	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

^c Average of values from RA 29 and TL12.

Pollutant: Manganese cmpds (#22) HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^{a, b}	PEN [Data Code] ^a	MUL T	Reference Sources
Car - In vehicle ' 1		1.0 [3]	0.88 [2]	0.88	
Bus - In vehicle ' 2		1.0 [3]	0.88 [2]	0.88	
Truck - In vehicle ' 3		1.0 [3]	0.88 [2]	0.88	
Other - In vehicle ' 4		1.0 [3]	0.88 [2]	0.88	
Public garage - Indoors ' 5		1.0 [3]	0.78 [2]	0.78	
Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
Service station - Indoors ' 9		1.0 [3]	0.78 [2]	0.78	
Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
Residential garage - Indoors ' 11		1.0 [3]	0.77 [2]	0.77	
Other repair shop - Indoors ' 12		1.0 [3]	0.78 [2]	0.78	
Residence (no CO source) - Indoors' 13		1.0 [3]	0.61 [1]	0.61	MZ 6, MZ 7
Residence (gas stove) - Indoors ' 14		1.0 [3]	0.77 [2]	0.77	
Residence (attached garage) - Indoors' 15		1.0 [3]	0.77 [2]	0.77	
Residence (stove and garage)- Indoors' 16		1.0 [3]	0.77 [2]	0.77	
Office - Indoors ' 17		1.0 [3]	0.78 [2]	0.78	
Store - Indoors ' 18		1.0 [3]	0.78 [2]	0.78	
Restaurant - Indoors ' 19		1.0 [3]	0.78 [2]	0.78	
Manufacturing facility - Indoors ' 20		1.0 [3]	0.78 [2]	0.78	
School - Indoors ' 21		1.0 [3]	0.78 [2]	0.78	
Church- Indoors ' 22		1.0 [3]	0.78 [2]	0.78	
Shopping mall - Indoors ' 23		1.0 [3]	0.78 [2]	0.78	
Auditorium - Indoors ' 24		1.0 [3]	0.78 [2]	0.78	
Health care facility - Indoors ' 25		1.0 [3]	0.78 [2]	0.78	
Other public building - Indoors ' 26		1.0 [3]	0.78 [2]	0.78	
Other location - Indoors ' 27		1.0 [3]	0.78 [2]	0.78	
Not specified - Indoors ' 28		1.0 [3]	0.78 [2]	0.78	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	
Train/subway - In vehicle ' 36		1.0 [3]	0.88 [2]	0.88	
Airplane - In vehicle ' 37		0.0 [3]	0.88 [2]	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

Pollutant: <u>Mercury compounds</u> (#23) HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^{a, b}	PEN [Data Code] ^a	MUL T	Reference Sources
Car - In vehicle ' 1		1.0 [3]	0.88 [2]	0.88	
Bus - In vehicle ' 2		1.0 [3]	0.88 [2]	0.88	
Truck - In vehicle ' 3		1.0 [3]	0.88 [2]	0.88	
Other - In vehicle ' 4		1.0 [3]	0.88 [2]	0.88	
Public garage - Indoors ' 5		1.0 [3]	0.78 [2]	0.78	
Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
Service station - Indoors ' 9		1.0 [3]	0.78 [2]	0.78	
Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
Residential garage - Indoors ' 11		1.0 [3]	0.77 [2]	0.77	
Other repair shop - Indoors ' 12		1.0 [3]	0.78 [2]	0.78	
Residence (no CO source) - Indoors' 13		1.0 [3]	0.77 [2]	0.77	
Residence (gas stove) - Indoors ' 14		1.0 [3]	0.77 [2]	0.77	
Residence (attached garage) - Indoors' 15		1.0 [3]	0.77 [2]	0.77	
Residence (stove and garage)- Indoors' 16		1.0 [3]	0.77 [2]	0.77	
Office - Indoors ' 17		1.0 [3]	0.78 [2]	0.78	
Store - Indoors ' 18		1.0 [3]	0.78 [2]	0.78	
Restaurant - Indoors ' 19		1.0 [3]	0.78 [2]	0.78	
Manufacturing facility - Indoors ' 20		1.0 [3]	0.78 [2]	0.78	
School - Indoors ' 21		1.0 [3]	0.78 [2]	0.78	
Church- Indoors ' 22		1.0 [3]	0.78 [2]	0.78	
Shopping mall - Indoors ' 23		1.0 [3]	0.78 [2]	0.78	
Auditorium - Indoors ' 24		1.0 [3]	0.78 [2]	0.78	
Health care facility - Indoors ' 25		1.0 [3]	0.78 [2]	0.78	
Other public building - Indoors ' 26		1.0 [3]	0.78 [2]	0.78	
Other location - Indoors ' 27		1.0 [3]	0.78 [2]	0.78	
Not specified - Indoors ' 28		1.0 [3]	0.78 [2]	0.78	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	
Train/subway - In vehicle ' 36		1.0 [3]	0.88 [2]	0.88	
Airplane - In vehicle ' 37		0.0 [3]	0.88 [2]	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

Pollutant: Methylene chloride (dichloromethane) (#24)	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code]^{a, b}	PEN [Data Code]^a	MUL T	Reference Sources
HAPEM ME ' Number					
Car - In vehicle ' 1		1.0 [3]	0.88 [2]	0.88	
Bus - In vehicle ' 2		1.0 [3]	0.88 [2]	0.88	
Truck - In vehicle ' 3		1.0 [3]	0.88 [2]	0.88	
Other - In vehicle ' 4		1.0 [3]	0.88 [2]	0.88	
Public garage - Indoors ' 5		1.0 [3]	0.78 [2]	0.78	
Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
Service station - Indoors ' 9		1.0 [3]	0.78 [2]	0.78	
Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
Residential garage - Indoors ' 11		1.0 [3]	0.77 [2]	0.77	
Other repair shop - Indoors ' 12		1.0 [3]	0.78 [2]	0.78	
Residence (no CO source) - Indoors' 13		1.0 [3]	0.77 [2]	0.77	
Residence (gas stove) - Indoors ' 14		1.0 [3]	0.77 [2]	0.77	
Residence (attached garage) - Indoors' 15		1.0 [3]	0.77 [2]	0.77	
Residence (stove and garage)- Indoors' 16		1.0 [3]	0.77 [2]	0.77	
Office - Indoors ' 17		1.0 [3]	1.0 [1]	1	MZ 39, TL 10
Store - Indoors ' 18		1.0 [3]	0.78 [2]	0.78	
Restaurant - Indoors ' 19		1.0 [3]	0.78 [2]	0.78	
Manufacturing facility - Indoors ' 20		1.0 [3]	0.78 [2]	0.78	
School - Indoors ' 21		1.0 [3]	0.78 [2]	0.78	
Church- Indoors ' 22		1.0 [3]	0.78 [2]	0.78	
Shopping mall - Indoors ' 23		1.0 [3]	0.78 [2]	0.78	
Auditorium - Indoors ' 24		1.0 [3]	0.78 [2]	0.78	
Health care facility - Indoors ' 25		1.0 [3]	0.78 [2]	0.78	
Other public building - Indoors ' 26		1.0 [3]	0.78 [2]	0.78	
Other location - Indoors ' 27		1.0 [3]	0.78 [2]	0.78	
Not specified - Indoors ' 28		1.0 [3]	0.78 [2]	0.78	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	
Train/subway - In vehicle ' 36		1.0 [3]	0.88 [2]	0.88	
Airplane - In vehicle ' 37		0.0 [3]	0.88 [2]	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

Pollutant: Nickel compounds (#25) HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^{a, b}	PEN [Data Code] ^a	MUL T	Reference Sources
Car - In vehicle ' 1		1.0 [3]	0.88 [2]	0.88	
Bus - In vehicle ' 2		1.0 [3]	0.88 [2]	0.88	
Truck - In vehicle ' 3		1.0 [3]	0.88 [2]	0.88	
Other - In vehicle ' 4		1.0 [3]	0.88 [2]	0.88	
Public garage - Indoors ' 5		1.0 [3]	0.78 [2]	0.78	
Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
Service station - Indoors ' 9		1.0 [3]	0.78 [2]	0.78	
Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
Residential garage - Indoors ' 11		1.0 [3]	0.77 [2]	0.77	
Other repair shop - Indoors ' 12		1.0 [3]	0.78 [2]	0.78	
Residence (no CO source) - Indoors' 13		1.0 [3]	0.77 [2]	0.77	
Residence (gas stove) - Indoors ' 14		1.0 [3]	0.77 [2]	0.77	
Residence (attached garage) - Indoors' 15		1.0 [3]	0.77 [2]	0.77	
Residence (stove and garage)- Indoors' 16		1.0 [3]	0.77 [2]	0.77	
Office - Indoors ' 17		1.0 [3]	0.78 [2]	0.78	
Store - Indoors ' 18		1.0 [3]	0.78 [2]	0.78	
Restaurant - Indoors ' 19		1.0 [3]	0.78 [2]	0.78	
Manufacturing facility - Indoors ' 20		1.0 [3]	0.78 [2]	0.78	
School - Indoors ' 21		1.0 [3]	0.78 [2]	0.78	
Church- Indoors ' 22		1.0 [3]	0.78 [2]	0.78	
Shopping mall - Indoors ' 23		1.0 [3]	0.78 [2]	0.78	
Auditorium - Indoors ' 24		1.0 [3]	0.78 [2]	0.78	
Health care facility - Indoors ' 25		1.0 [3]	0.78 [2]	0.78	
Other public building - Indoors ' 26		1.0 [3]	0.78 [2]	0.78	
Other location - Indoors ' 27		1.0 [3]	0.78 [2]	0.78	
Not specified - Indoors ' 28		1.0 [3]	0.78 [2]	0.78	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	
Train/subway - In vehicle ' 36		1.0 [3]	0.88 [2]	0.88	
Airplane - In vehicle ' 37		0.0 [3]	0.88 [2]	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

Pollutant: 7-PAH : (Lower and upper bound) (#26) HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code]^{a, b}	PEN [Data Code]^a	MUL T	Reference Sources
Car - In vehicle ' 1		1.0 [3]	0.88 [2]	0.88	
Bus - In vehicle ' 2		1.0 [3]	0.88 [2]	0.88	
Truck - In vehicle ' 3		1.0 [3]	0.88 [2]	0.88	
Other - In vehicle ' 4		1.0 [3]	0.88 [2]	0.88	
Public garage - Indoors ' 5		1.0 [3]	0.81 [2]	0.81	
Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
Service station - Indoors ' 9		1.0 [3]	0.81 [2]	0.81	
Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
Residential garage - Indoors ' 11		1.0 [3]	0.72 [2]	0.72	
Other repair shop - Indoors ' 12		1.0 [3]	0.81 [2]	0.81	
Residence (no CO source) - Indoors' 13		1.0 [3]	0.7 [1]	0.7	MZ 17
Residence (gas stove) - Indoors ' 14		1.0 [3]	0.72 [2]	0.72	
Residence (attached garage) - Indoors' 15		1.0 [3]	0.72 [2]	0.72	
Residence (stove and garage)- Indoors' 16		1.0 [3]	0.72 [2]	0.72	
Office - Indoors ' 17		1.0 [3]	0.81 [2]	0.81	
Store - Indoors ' 18		1.0 [3]	0.81 [2]	0.81	
Restaurant - Indoors ' 19		1.0 [3]	0.81 [2]	0.81	
Manufacturing facility - Indoors ' 20		1.0 [3]	0.81 [2]	0.81	
School - Indoors ' 21		1.0 [3]	0.81 [2]	0.81	
Church- Indoors ' 22		1.0 [3]	0.81 [2]	0.81	
Shopping mall - Indoors ' 23		1.0 [3]	0.81 [2]	0.81	
Auditorium - Indoors ' 24		1.0 [3]	0.81 [2]	0.81	
Health care facility - Indoors ' 25		1.0 [3]	0.81 [2]	0.81	
Other public building - Indoors ' 26		1.0 [3]	0.81 [2]	0.81	
Other location - Indoors ' 27		1.0 [3]	0.81 [2]	0.81	
Not specified - Indoors ' 28		1.0 [3]	0.81 [2]	0.81	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	
Train/subway - In vehicle ' 36		1.0 [3]	0.88 [2]	0.88	
Airplane - In vehicle ' 37		0.0 [3]	0.88 [2]	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

Pollutant: Polychlorinated biphenyls (#27)	HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code]^{a, b}	PEN [Data Code]^a	MUL T	Reference Sources
	Car - In vehicle ' 1		1.0 [3]	0.88 [2]	0.88	
	Bus - In vehicle ' 2		1.0 [3]	0.88 [2]	0.88	
	Truck - In vehicle ' 3		1.0 [3]	0.88 [2]	0.88	
	Other - In vehicle ' 4		1.0 [3]	0.88 [2]	0.88	
	Public garage - Indoors ' 5		1.0 [3]	0.78 [2]	0.78	
	Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
	Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
	Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
	Service station - Indoors ' 9		1.0 [3]	0.78 [2]	0.78	
	Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
	Residential garage - Indoors ' 11		1.0 [3]	0.77 [2]	0.77	
	Other repair shop - Indoors ' 12		1.0 [3]	0.78 [2]	0.78	
	Residence (no CO source) - Indoors' 13		1.0 [3]	0.77 [2]	0.77	
	Residence (gas stove) - Indoors ' 14		1.0 [3]	0.77 [2]	0.77	
	Residence (attached garage) - Indoors' 15		1.0 [3]	0.77 [2]	0.77	
	Residence (stove and garage)- Indoors' 16		1.0 [3]	0.77 [2]	0.77	
	Office - Indoors ' 17		1.0 [3]	0.78 [2]	0.78	
	Store - Indoors ' 18		1.0 [3]	0.78 [2]	0.78	
	Restaurant - Indoors ' 19		1.0 [3]	0.78 [2]	0.78	
	Manufacturing facility - Indoors ' 20		1.0 [3]	0.78 [2]	0.78	
	School - Indoors ' 21		1.0 [3]	0.78 [2]	0.78	
	Church- Indoors ' 22		1.0 [3]	0.78 [2]	0.78	
	Shopping mall - Indoors ' 23		1.0 [3]	0.78 [2]	0.78	
	Auditorium - Indoors ' 24		1.0 [3]	0.78 [2]	0.78	
	Health care facility - Indoors ' 25		1.0 [3]	0.78 [2]	0.78	
	Other public building - Indoors ' 26		1.0 [3]	0.78 [2]	0.78	
	Other location - Indoors ' 27		1.0 [3]	0.78 [2]	0.78	
	Not specified - Indoors ' 28		1.0 [3]	0.78 [2]	0.78	
	Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
	Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
	School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
	Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
	Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
	Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
	Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	
	Train/subway - In vehicle ' 36		1.0 [3]	0.88 [2]	0.88	
	Airplane - In vehicle ' 37		0.0 [3]	0.88 [2]	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

Pollutant: <u>Propylene dichloride (1,2-dichloropropane) (#28)</u> HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^{a, b}	PEN [Data Code] ^a	MUL T	Reference Sources
Car - In vehicle ' 1		1.0 [3]	0.88 [2]	0.88	
Bus - In vehicle ' 2		1.0 [3]	0.88 [2]	0.88	
Truck - In vehicle ' 3		1.0 [3]	0.88 [2]	0.88	
Other - In vehicle ' 4		1.0 [3]	0.88 [2]	0.88	
Public garage - Indoors ' 5		1.0 [3]	0.78 [2]	0.78	
Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
Service station - Indoors ' 9		1.0 [3]	0.78 [2]	0.78	
Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
Residential garage - Indoors ' 11		1.0 [3]	0.77 [2]	0.77	
Other repair shop - Indoors ' 12		1.0 [3]	0.78 [2]	0.78	
Residence (no CO source) - Indoors' 13		1.0 [3]	0.77 [2]	0.77	
Residence (gas stove) - Indoors ' 14		1.0 [3]	0.77 [2]	0.77	
Residence (attached garage) - Indoors' 15		1.0 [3]	0.77 [2]	0.77	
Residence (stove and garage)- Indoors' 16		1.0 [3]	0.77 [2]	0.77	
Office - Indoors ' 17		1.0 [3]	0.78 [2]	0.78	
Store - Indoors ' 18		1.0 [3]	0.78 [2]	0.78	
Restaurant - Indoors ' 19		1.0 [3]	0.78 [2]	0.78	
Manufacturing facility - Indoors ' 20		1.0 [3]	0.78 [2]	0.78	
School - Indoors ' 21		1.0 [3]	0.78 [2]	0.78	
Church- Indoors ' 22		1.0 [3]	0.78 [2]	0.78	
Shopping mall - Indoors ' 23		1.0 [3]	0.78 [2]	0.78	
Auditorium - Indoors ' 24		1.0 [3]	0.78 [2]	0.78	
Health care facility - Indoors ' 25		1.0 [3]	0.78 [2]	0.78	
Other public building - Indoors ' 26		1.0 [3]	0.78 [2]	0.78	
Other location - Indoors ' 27		1.0 [3]	0.78 [2]	0.78	
Not specified - Indoors ' 28		1.0 [3]	0.78 [2]	0.78	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	
Train/subway - In vehicle ' 36		1.0 [3]	0.88 [2]	0.88	
Airplane - In vehicle ' 37		0.0 [3]	0.88 [2]	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

Pollutant: Quinoline (#29) HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^{a, b}	PEN [Data Code] ^a	MUL T	Reference Sources
Car - In vehicle ' 1		1.0 [3]	0.88 [2]	0.88	
Bus - In vehicle ' 2		1.0 [3]	0.88 [2]	0.88	
Truck - In vehicle ' 3		1.0 [3]	0.88 [2]	0.88	
Other - In vehicle ' 4		1.0 [3]	0.88 [2]	0.88	
Public garage - Indoors ' 5		1.0 [3]	0.81 [2]	0.81	
Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
Service station - Indoors ' 9		1.0 [3]	0.81 [2]	0.81	
Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
Residential garage - Indoors ' 11		1.0 [3]	0.72 [2]	0.72	
Other repair shop - Indoors ' 12		1.0 [3]	0.81 [2]	0.81	
Residence (no CO source) - Indoors' 13		1.0 [3]	0.72 [2]	0.72	
Residence (gas stove) - Indoors ' 14		1.0 [3]	0.72 [2]	0.72	
Residence (attached garage) - Indoors' 15		1.0 [3]	0.72 [2]	0.72	
Residence (stove and garage)- Indoors' 16		1.0 [3]	0.72 [2]	0.72	
Office - Indoors ' 17		1.0 [3]	0.81 [2]	0.81	
Store - Indoors ' 18		1.0 [3]	0.81 [2]	0.81	
Restaurant - Indoors ' 19		1.0 [3]	0.81 [2]	0.81	
Manufacturing facility - Indoors ' 20		1.0 [3]	0.81 [2]	0.81	
School - Indoors ' 21		1.0 [3]	0.81 [2]	0.81	
Church- Indoors ' 22		1.0 [3]	0.81 [2]	0.81	
Shopping mall - Indoors ' 23		1.0 [3]	0.81 [2]	0.81	
Auditorium - Indoors ' 24		1.0 [3]	0.81 [2]	0.81	
Health care facility - Indoors ' 25		1.0 [3]	0.81 [2]	0.81	
Other public building - Indoors ' 26		1.0 [3]	0.81 [2]	0.81	
Other location - Indoors ' 27		1.0 [3]	0.81 [2]	0.81	
Not specified - Indoors ' 28		1.0 [3]	0.81 [2]	0.81	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	
Train/subway - In vehicle ' 36		1.0 [3]	0.88 [2]	0.88	
Airplane - In vehicle ' 37		0.0 [3]	0.88 [2]	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

Pollutant: Styrene (#30) HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^{a, b}	PEN [Data Code] ^a	MUL T	Reference Sources
Car - In vehicle ' 1		1.0 [3]	0.90 [2]	0.9	
Bus - In vehicle ' 2		1.0 [3]	0.90 [2]	0.9	
Truck - In vehicle ' 3		1.0 [3]	0.90 [2]	0.9	
Other - In vehicle ' 4		1.0 [3]	0.90 [2]	0.9	
Public garage - Indoors ' 5		1.0 [3]	0.80 [2]	0.8	
Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
Service station - Indoors ' 9		1.0 [3]	0.80 [2]	0.8	
Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
Residential garage - Indoors ' 11		1.0 [3]	0.81 [2]	0.81	
Other repair shop - Indoors ' 12		1.0 [3]	0.80 [2]	0.8	
Residence (no CO source) - Indoors' 13		1.0 [3]	0.95 [1]	0.95	MZ 38
Residence (gas stove) - Indoors ' 14		1.0 [3]	0.81 [2]	0.81	
Residence (attached garage) - Indoors' 15		1.0 [3]	0.81 [2]	0.81	
Residence (stove and garage)- Indoors' 16		1.0 [3]	0.81 [2]	0.81	
Office - Indoors ' 17		1.0 [3]	0.85 [1]	0.85	MZ 39
Store - Indoors ' 18		1.0 [3]	0.80 [2]	0.8	
Restaurant - Indoors ' 19		1.0 [3]	0.80 [2]	0.8	
Manufacturing facility - Indoors ' 20		1.0 [3]	0.80 [2]	0.8	
School - Indoors ' 21		1.0 [3]	0.80 [2]	0.8	
Church- Indoors ' 22		1.0 [3]	0.80 [2]	0.8	
Shopping mall - Indoors ' 23		1.0 [3]	0.80 [2]	0.8	
Auditorium - Indoors ' 24		1.0 [3]	0.80 [2]	0.8	
Health care facility - Indoors ' 25		1.0 [3]	0.80 [2]	0.8	
Other public building - Indoors ' 26		1.0 [3]	0.80 [2]	0.8	
Other location - Indoors ' 27		1.0 [3]	0.80 [2]	0.8	
Not specified - Indoors ' 28		1.0 [3]	0.80 [2]	0.8	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	
Train/subway - In vehicle ' 36		1.0 [3]	0.90 [2]	0.9	
Airplane - In vehicle ' 37		0.0 [3]	0.90 [2]	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

Pollutant: 2,3,7,8-TCDD: (Lower and upper bound) (#31)	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code]^{a, b}	PEN [Data Code]^a	MULT	Reference Sources
HAPEM ME ' Number					
Car - In vehicle ' 1		1.0 [3]	0.88 [2]	0.88	
Bus - In vehicle ' 2		1.0 [3]	0.88 [2]	0.88	
Truck - In vehicle ' 3		1.0 [3]	0.88 [2]	0.88	
Other - In vehicle ' 4		1.0 [3]	0.88 [2]	0.88	
Public garage - Indoors ' 5		1.0 [3]	0.81 [2]	0.81	
Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
Service station - Indoors ' 9		1.0 [3]	0.81 [2]	0.81	
Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
Residential garage - Indoors ' 11		1.0 [3]	0.72 [2]	0.72	
Other repair shop - Indoors ' 12		1.0 [3]	0.81 [2]	0.81	
Residence (no CO source) - Indoors' 13		1.0 [3]	0.72 [2]	0.72	
Residence (gas stove) - Indoors ' 14		1.0 [3]	0.72 [2]	0.72	
Residence (attached garage) - Indoors' 15		1.0 [3]	0.72 [2]	0.72	
Residence (stove and garage)- Indoors' 16		1.0 [3]	0.72 [2]	0.72	
Office - Indoors ' 17		1.0 [3]	0.81 [2]	0.81	
Store - Indoors ' 18		1.0 [3]	0.81 [2]	0.81	
Restaurant - Indoors ' 19		1.0 [3]	0.81 [2]	0.81	
Manufacturing facility - Indoors ' 20		1.0 [3]	0.81 [2]	0.81	
School - Indoors ' 21		1.0 [3]	0.81 [2]	0.81	
Church- Indoors ' 22		1.0 [3]	0.81 [2]	0.81	
Shopping mall - Indoors ' 23		1.0 [3]	0.81 [2]	0.81	
Auditorium - Indoors ' 24		1.0 [3]	0.81 [2]	0.81	
Health care facility - Indoors ' 25		1.0 [3]	0.81 [2]	0.81	
Other public building - Indoors ' 26		1.0 [3]	0.81 [2]	0.81	
Other location - Indoors ' 27		1.0 [3]	0.81 [2]	0.81	
Not specified - Indoors ' 28		1.0 [3]	0.81 [2]	0.81	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	
Train/subway - In vehicle ' 36		1.0 [3]	0.88 [2]	0.88	
Airplane - In vehicle ' 37		0.0 [3]	0.88 [2]	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

Pollutant: 1,1,2,2-tetrachloroethane (#32)	HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code]^{a, b}	PEN [Data Code]^a	MULT	Reference Sources
	Car - In vehicle ' 1		1.0 [3]	0.88 [2]	0.88	
	Bus - In vehicle ' 2		1.0 [3]	0.88 [2]	0.88	
	Truck - In vehicle ' 3		1.0 [3]	0.88 [2]	0.88	
	Other - In vehicle ' 4		1.0 [3]	0.88 [2]	0.88	
	Public garage - Indoors ' 5		1.0 [3]	0.78 [2]	0.78	
	Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
	Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
	Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
	Service station - Indoors ' 9		1.0 [3]	0.78 [2]	0.78	
	Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
	Residential garage - Indoors ' 11		1.0 [3]	0.77 [2]	0.77	
	Other repair shop - Indoors ' 12		1.0 [3]	0.78 [2]	0.78	
	Residence (no CO source) - Indoors' 13		1.0 [3]	0.77 [2]	0.77	
	Residence (gas stove) - Indoors ' 14		1.0 [3]	0.77 [2]	0.77	
	Residence (attached garage) - Indoors' 15		1.0 [3]	0.77 [2]	0.77	
	Residence (stove and garage)- Indoors' 16		1.0 [3]	0.77 [2]	0.77	
	Office - Indoors ' 17		1.0 [3]	0.87 [1]	0.87	MZ 39
	Store - Indoors ' 18		1.0 [3]	0.78 [2]	0.78	
	Restaurant - Indoors ' 19		1.0 [3]	0.78 [2]	0.78	
	Manufacturing facility - Indoors ' 20		1.0 [3]	0.78 [2]	0.78	
	School - Indoors ' 21		1.0 [3]	0.78 [2]	0.78	
	Church- Indoors ' 22		1.0 [3]	0.78 [2]	0.78	
	Shopping mall - Indoors ' 23		1.0 [3]	0.78 [2]	0.78	
	Auditorium - Indoors ' 24		1.0 [3]	0.78 [2]	0.78	
	Health care facility - Indoors ' 25		1.0 [3]	0.78 [2]	0.78	
	Other public building - Indoors ' 26		1.0 [3]	0.78 [2]	0.78	
	Other location - Indoors ' 27		1.0 [3]	0.78 [2]	0.78	
	Not specified - Indoors ' 28		1.0 [3]	0.78 [2]	0.78	
	Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
	Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
	School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
	Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
	Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
	Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
	Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	
	Train/subway - In vehicle ' 36		1.0 [3]	0.88 [2]	0.88	
	Airplane - In vehicle ' 37		0.0 [3]	0.88 [2]	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

Pollutant: Tetrachloroethylene (perchloroethylene) (#33) HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^{a, b}	PEN [Data Code] ^a	MUL T	Reference Sources
Car - In vehicle ' 1		1.0 [3]	0.88 [2]	0.88	
Bus - In vehicle ' 2		1.0 [3]	0.88 [2]	0.88	
Truck - In vehicle ' 3		1.0 [3]	0.88 [2]	0.88	
Other - In vehicle ' 4		1.0 [3]	0.88 [2]	0.88	
Public garage - Indoors ' 5		1.0 [3]	0.78 [2]	0.78	
Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
Service station - Indoors ' 9		1.0 [3]	0.78 [2]	0.78	
Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
Residential garage - Indoors ' 11		1.0 [3]	0.77 [2]	0.77	
Other repair shop - Indoors ' 12		1.0 [3]	0.78 [2]	0.78	
Residence (no CO source) - Indoors' 13		1.0 [3]	0.65 [1]	0.65	MZ 27
Residence (gas stove) - Indoors ' 14		1.0 [3]	0.77 [2]	0.77	
Residence (attached garage) - Indoors' 15		1.0 [3]	0.77 [2]	0.77	
Residence (stove and garage)- Indoors' 16		1.0 [3]	0.77 [2]	0.77	
Office - Indoors ' 17		1.0 [3]	0.78 [2]	0.78	
Store - Indoors ' 18		1.0 [3]	0.78 [2]	0.78	
Restaurant - Indoors ' 19		1.0 [3]	0.78 [2]	0.78	
Manufacturing facility - Indoors ' 20		1.0 [3]	0.78 [2]	0.78	
School - Indoors ' 21		1.0 [3]	0.65 [1]	0.65	MZ 1
Church- Indoors ' 22		1.0 [3]	0.78 [2]	0.78	
Shopping mall - Indoors ' 23		1.0 [3]	0.78 [2]	0.78	
Auditorium - Indoors ' 24		1.0 [3]	0.78 [2]	0.78	
Health care facility - Indoors ' 25		1.0 [3]	0.78 [2]	0.78	
Other public building - Indoors ' 26		1.0 [3]	0.78 [2]	0.78	
Other location - Indoors ' 27		1.0 [3]	0.9 ^c [1]	0.9	MZ 32
Not specified - Indoors ' 28		1.0 [3]	0.78 [2]	0.78	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	
Train/subway - In vehicle ' 36		1.0 [3]	0.88 [2]	0.88	
Airplane - In vehicle ' 37		0.0 [3]	0.88 [2]	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

^c Museum

Pollutant: Trichloroethylene (#34) HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^{a, b}	PEN [Data Code] ^a	MUL T	Reference Sources
Car - In vehicle ' 1		1.0 [3]	0.88 [2]	0.88	
Bus - In vehicle ' 2		1.0 [3]	0.88 [2]	0.88	
Truck - In vehicle ' 3		1.0 [3]	0.88 [2]	0.88	
Other - In vehicle ' 4		1.0 [3]	0.88 [2]	0.88	
Public garage - Indoors ' 5		1.0 [3]	0.78 [2]	0.78	
Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
Service station - Indoors ' 9		1.0 [3]	0.78 [2]	0.78	
Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
Residential garage - Indoors ' 11		1.0 [3]	0.77 [2]	0.77	
Other repair shop - Indoors ' 12		1.0 [3]	0.78 [2]	0.78	
Residence (no CO source) - Indoors' 13		1.0 [3]	0.9 [1]	0.9	MZ 27
Residence (gas stove) - Indoors ' 14		1.0 [3]	0.77 [2]	0.77	
Residence (attached garage) - Indoors' 15		1.0 [3]	0.77 [2]	0.77	
Residence (stove and garage)- Indoors' 16		1.0 [3]	0.77 [2]	0.77	
Office - Indoors ' 17		1.0 [3]	0.78 [2]	0.78	
Store - Indoors ' 18		1.0 [3]	0.78 [2]	0.78	
Restaurant - Indoors ' 19		1.0 [3]	0.78 [2]	0.78	
Manufacturing facility - Indoors ' 20		1.0 [3]	0.78 [2]	0.78	
School - Indoors ' 21		1.0 [3]	0.78 [2]	0.78	
Church- Indoors ' 22		1.0 [3]	0.78 [2]	0.78	
Shopping mall - Indoors ' 23		1.0 [3]	0.78 [2]	0.78	
Auditorium - Indoors ' 24		1.0 [3]	0.78 [2]	0.78	
Health care facility - Indoors ' 25		1.0 [3]	0.78 [2]	0.78	
Other public building - Indoors ' 26		1.0 [3]	0.78 [2]	0.78	
Other location - Indoors ' 27		1.0 [3]	0.78 [2]	0.78	
Not specified - Indoors ' 28		1.0 [3]	0.78 [2]	0.78	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	
Train/subway - In vehicle ' 36		1.0 [3]	0.88 [2]	0.88	
Airplane - In vehicle ' 37		0.0 [3]	0.88 [2]	0	

^a **Data Code:** 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

Pollutant: Vinyl chloride (#35) HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^{a, b}	PEN [Data Code] ^a	MUL T	Reference Sources
Car - In vehicle ' 1		1.0 [3]	0.88 [2]	0.88	
Bus - In vehicle ' 2		1.0 [3]	0.88 [2]	0.88	
Truck - In vehicle ' 3		1.0 [3]	0.88 [2]	0.88	
Other - In vehicle ' 4		1.0 [3]	0.88 [2]	0.88	
Public garage - Indoors ' 5		1.0 [3]	0.81 [2]	0.81	
Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
Service station - Indoors ' 9		1.0 [3]	0.81 [2]	0.81	
Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
Residential garage - Indoors ' 11		1.0 [3]	0.72 [2]	0.72	
Other repair shop - Indoors ' 12		1.0 [3]	0.81 [2]	0.81	
Residence (no CO source) - Indoors' 13		1.0 [3]	0.72 [2]	0.72	
Residence (gas stove) - Indoors ' 14		1.0 [3]	0.72 [2]	0.72	
Residence (attached garage) - Indoors' 15		1.0 [3]	0.72 [2]	0.72	
Residence (stove and garage)- Indoors' 16		1.0 [3]	0.72 [2]	0.72	
Office - Indoors ' 17		1.0 [3]	0.81 [2]	0.81	
Store - Indoors ' 18		1.0 [3]	0.81 [2]	0.81	
Restaurant - Indoors ' 19		1.0 [3]	0.81 [2]	0.81	
Manufacturing facility - Indoors ' 20		1.0 [3]	0.81 [2]	0.81	
School - Indoors ' 21		1.0 [3]	0.81 [2]	0.81	
Church- Indoors ' 22		1.0 [3]	0.81 [2]	0.81	
Shopping mall - Indoors ' 23		1.0 [3]	0.81 [2]	0.81	
Auditorium - Indoors ' 24		1.0 [3]	0.81 [2]	0.81	
Health care facility - Indoors ' 25		1.0 [3]	0.81 [2]	0.81	
Other public building - Indoors ' 26		1.0 [3]	0.81 [2]	0.81	
Other location - Indoors ' 27		1.0 [3]	0.81 [2]	0.81	
Not specified - Indoors ' 28		1.0 [3]	0.81 [2]	0.81	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	
Train/subway - In vehicle ' 36		1.0 [3]	0.88 [2]	0.88	
Airplane - In vehicle ' 37		0.0 [3]	0.88 [2]	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

Pollutant: Ethylbenzene HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^{a, b}	PEN [Data Code] ^a	MUL T	Reference Sources
Car - In vehicle ' 1		1.0 [3]	0.8 [1]	0.8	MZ 28
Bus - In vehicle ' 2		1.0 [3]	0.90 [2]	0.9	
Truck - In vehicle ' 3		1.0 [3]	0.90 [2]	0.9	
Other - In vehicle ' 4		1.0 [3]	0.90 [2]	0.9	
Public garage - Indoors ' 5		1.0 [3]	0.79 [1]	0.79	RA 24
Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
Service station - Indoors ' 9		1.0 [3]	0.80 [2]	0.8	
Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
Residential garage - Indoors ' 11		1.0 [3]	0.81 [2]	0.81	
Other repair shop - Indoors ' 12		1.0 [3]	0.80 [2]	0.8	
Residence (no CO source) - Indoors' 13		1.0 [3]	0.85 [1]	0.85	MZ 27
Residence (gas stove) - Indoors ' 14		1.0 [3]	0.81 [2]	0.81	
Residence (attached garage) - Indoors' 15		1.0 [3]	0.81 [2]	0.81	
Residence (stove and garage)- Indoors' 16		1.0 [3]	0.81 [2]	0.81	
Office - Indoors ' 17		1.0 [3]	0.74 [1]	0.74	MZ 39
Store - Indoors ' 18		1.0 [3]	0.80 [2]	0.8	
Restaurant - Indoors ' 19		1.0 [3]	0.80 [2]	0.8	
Manufacturing facility - Indoors ' 20		1.0 [3]	0.80 [2]	0.8	
School - Indoors ' 21		1.0 [3]	0.80 [2]	0.8	
Church- Indoors ' 22		1.0 [3]	0.80 [2]	0.8	
Shopping mall - Indoors ' 23		1.0 [3]	0.80 [2]	0.8	
Auditorium - Indoors ' 24		1.0 [3]	0.80 [2]	0.8	
Health care facility - Indoors ' 25		1.0 [3]	0.80 [2]	0.8	
Other public building - Indoors ' 26		1.0 [3]	0.80 [2]	0.8	
Other location - Indoors ' 27		1.0 [3]	0.80 [2]	0.8	
Not specified - Indoors ' 28		1.0 [3]	0.80 [2]	0.8	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	
Train/subway - In vehicle ' 36		1.0 [3]	0.90 [2]	0.9	
Airplane - In vehicle ' 37		0.0 [3]	0.90 [2]	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

Pollutant: <u>Hexane</u> HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^{a, b}	PEN [Data Code] ^a	MUL T	Reference Sources
Car - In vehicle ' 1		1.0 [3]	0.93 [1]	0.93	MZ 28
Bus - In vehicle ' 2		1.0 [3]	0.90 [2]	0.9	
Truck - In vehicle ' 3		1.0 [3]	0.90 [2]	0.9	
Other - In vehicle ' 4		1.0 [3]	0.90 [2]	0.9	
Public garage - Indoors ' 5		1.0 [3]	0.80 [2]	0.8	
Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
Service station - Indoors ' 9		1.0 [3]	0.80 [2]	0.8	
Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
Residential garage - Indoors ' 11		1.0 [3]	0.81 [2]	0.81	
Other repair shop - Indoors ' 12		1.0 [3]	0.80 [2]	0.8	
Residence (no CO source) - Indoors' 13		1.0 [3]	0.65 [1]	0.65	MZ 27
Residence (gas stove) - Indoors ' 14		1.0 [3]	0.81 [2]	0.81	
Residence (attached garage) - Indoors' 15		1.0 [3]	0.81 [2]	0.81	
Residence (stove and garage)- Indoors' 16		1.0 [3]	0.81 [2]	0.81	
Office - Indoors ' 17		1.0 [3]	0.80 [2]	0.8	
Store - Indoors ' 18		1.0 [3]	0.80 [2]	0.8	
Restaurant - Indoors ' 19		1.0 [3]	0.80 [2]	0.8	
Manufacturing facility - Indoors ' 20		1.0 [3]	0.80 [2]	0.8	
School - Indoors ' 21		1.0 [3]	0.80 [2]	0.8	
Church- Indoors ' 22		1.0 [3]	0.80 [2]	0.8	
Shopping mall - Indoors ' 23		1.0 [3]	0.80 [2]	0.8	
Auditorium - Indoors ' 24		1.0 [3]	0.80 [2]	0.8	
Health care facility - Indoors ' 25		1.0 [3]	0.80 [2]	0.8	
Other public building - Indoors ' 26		1.0 [3]	0.80 [2]	0.8	
Other location - Indoors ' 27		1.0 [3]	0.80 [2]	0.8	
Not specified - Indoors ' 28		1.0 [3]	0.80 [2]	0.8	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	
Train/subway - In vehicle ' 36		1.0 [3]	0.90 [2]	0.9	
Airplane - In vehicle ' 37		0.0 [3]	0.90 [2]	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

Pollutant: MTBE HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^{a, b}	PEN [Data Code] ^a	MUL T	Reference Sources
Car - In vehicle ' 1		1.0 [3]		0	
Bus - In vehicle ' 2		1.0 [3]	1.0 [1]	1	MZ 14
Truck - In vehicle ' 3		1.0 [3]		0	
Other - In vehicle ' 4		1.0 [3]		0	
Public garage - Indoors ' 5		1.0 [3]		0	
Parking lot/garage - Outdoors ' 6		1.0 [3]		0	
Near road - Outdoors ' 7		1.0 [3]		0	
Motorcycle - Outdoors ' 8		1.0 [3]		0	
Service station - Indoors ' 9		1.0 [3]		0	
Service station - Outdoors ' 10		1.0 [3]		0	
Residential garage - Indoors ' 11		1.0 [3]		0	
Other repair shop - Indoors ' 12		1.0 [3]		0	
Residence (no CO source) - Indoors' 13		1.0 [3]		0	
Residence (gas stove) - Indoors ' 14		1.0 [3]		0	
Residence (attached garage) - Indoors' 15		1.0 [3]		0	
Residence (stove and garage)- Indoors' 16		1.0 [3]		0	
Office - Indoors ' 17		1.0 [3]		0	
Store - Indoors ' 18		1.0 [3]		0	
Restaurant - Indoors ' 19		1.0 [3]		0	
Manufacturing facility - Indoors ' 20		1.0 [3]		0	
School - Indoors ' 21		1.0 [3]		0	
Church- Indoors ' 22		1.0 [3]		0	
Shopping mall - Indoors ' 23		1.0 [3]		0	
Auditorium - Indoors ' 24		1.0 [3]		0	
Health care facility - Indoors ' 25		1.0 [3]		0	
Other public building - Indoors ' 26		1.0 [3]		0	
Other location - Indoors ' 27		1.0 [3]		0	
Not specified - Indoors ' 28		1.0 [3]		0	
Construction site - Outdoors ' 29		1.0 [3]		0	
Residential grounds - Outdoors ' 30		1.0 [3]		0	
School grounds - Outdoors ' 31		1.0 [3]		0	
Sports arena - Outdoors ' 32		1.0 [3]		0	
Park/golf course - Outdoors ' 33		1.0 [3]		0	
Other location - Outdoors ' 34		1.0 [3]		0	
Not specified - Outdoors ' 35		1.0 [3]		0	
Train/subway - In vehicle ' 36		1.0 [3]		0	
Airplane - In vehicle ' 37		0.0 [3]		0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

Pollutant: Toluene HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^{a, b}	PEN [Data Code] ^a	MUL T	Reference Sources
Car - In vehicle ' 1		1.0 [3]	0.88 [1]	0.88	MZ 28
Bus - In vehicle ' 2		1.0 [3]	0.88 [2]	0.88	
Truck - In vehicle ' 3		1.0 [3]	0.88 [2]	0.88	
Other - In vehicle ' 4		1.0 [3]	0.88 [2]	0.88	
Public garage - Indoors ' 5		1.0 [3]	0.80 [1]	0.8	RA 24
Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
Service station - Indoors ' 9		1.0 [3]	0.81 [2]	0.81	
Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
Residential garage - Indoors ' 11		1.0 [3]	0.72 [2]	0.72	
Other repair shop - Indoors ' 12		1.0 [3]	0.81 [2]	0.81	
Residence (no CO source) - Indoors' 13		1.0 [3]	0.95 [1]	0.95	MZ 27
Residence (gas stove) - Indoors ' 14		1.0 [3]	0.72 [2]	0.72	
Residence (attached garage) - Indoors' 15		1.0 [3]	0.72 [2]	0.72	
Residence (stove and garage)- Indoors' 16		1.0 [3]	0.72 [2]	0.72	
Office - Indoors ' 17		1.0 [3]	0.82 [1]	0.82	MZ 39
Store - Indoors ' 18		1.0 [3]	0.81 [2]	0.81	
Restaurant - Indoors ' 19		1.0 [3]	0.81 [2]	0.81	
Manufacturing facility - Indoors ' 20		1.0 [3]	0.81 [2]	0.81	
School - Indoors ' 21		1.0 [3]	0.81 [2]	0.81	
Church- Indoors ' 22		1.0 [3]	0.81 [2]	0.81	
Shopping mall - Indoors ' 23		1.0 [3]	0.81 [2]	0.81	
Auditorium - Indoors ' 24		1.0 [3]	0.81 [2]	0.81	
Health care facility - Indoors ' 25		1.0 [3]	0.81 [2]	0.81	
Other public building - Indoors ' 26		1.0 [3]	0.81 [2]	0.81	
Other location - Indoors ' 27		1.0 [3]	0.81 [2]	0.81	
Not specified - Indoors ' 28		1.0 [3]	0.81 [2]	0.81	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	
Train/subway - In vehicle ' 36		1.0 [3]	0.88 [2]	0.88	
Airplane - In vehicle ' 37		0.0 [3]	0.88 [2]	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

Pollutant: Xylenes HAPEM ME ' Number	ADD ($\mu\text{g}/\text{m}^3$)	PROX [Data Code] ^{a, b}	PEN [Data Code] ^a	MUL T	Reference Sources
Car - In vehicle ' 1		1.0 [3]	0.88 [1]	0.88	MZ 28
Bus - In vehicle ' 2		1.0 [3]	0.90 [2]	0.9	
Truck - In vehicle ' 3		1.0 [3]	0.90 [2]	0.9	
Other - In vehicle ' 4		1.0 [3]	0.90 [2]	0.9	
Public garage - Indoors ' 5		1.0 [3]	0.94 [1]	0.94	RA 24
Parking lot/garage - Outdoors ' 6		1.0 [3]	1.0 [3]	1	
Near road - Outdoors ' 7		1.0 [3]	1.0 [3]	1	
Motorcycle - Outdoors ' 8		1.0 [3]	1.0 [3]	1	
Service station - Indoors ' 9		1.0 [3]	0.80 [2]	0.8	
Service station - Outdoors ' 10		1.0 [3]	1.0 [3]	1	
Residential garage - Indoors ' 11		1.0 [3]	0.81 [2]	0.81	
Other repair shop - Indoors ' 12		1.0 [3]	0.80 [2]	0.8	
Residence (no CO source) - Indoors' 13		1.0 [3]	0.85 [1]	0.85	MZ 27
Residence (gas stove) - Indoors ' 14		1.0 [3]	0.81 [2]	0.81	
Residence (attached garage) - Indoors' 15		1.0 [3]	0.81 [2]	0.81	
Residence (stove and garage)- Indoors' 16		1.0 [3]	0.81 [2]	0.81	
Office - Indoors ' 17		1.0 [3]	0.74 [1]	0.74	MZ 39
Store - Indoors ' 18		1.0 [3]	0.80 [2]	0.8	
Restaurant - Indoors ' 19		1.0 [3]	0.80 [2]	0.8	
Manufacturing facility - Indoors ' 20		1.0 [3]	0.80 [2]	0.8	
School - Indoors ' 21		1.0 [3]	0.80 [2]	0.8	
Church- Indoors ' 22		1.0 [3]	0.80 [2]	0.8	
Shopping mall - Indoors ' 23		1.0 [3]	0.80 [2]	0.8	
Auditorium - Indoors ' 24		1.0 [3]	0.80 [2]	0.8	
Health care facility - Indoors ' 25		1.0 [3]	0.80 [2]	0.8	
Other public building - Indoors ' 26		1.0 [3]	0.80 [2]	0.8	
Other location - Indoors ' 27		1.0 [3]	1.0 ^c [1]	1	MZ 29
Not specified - Indoors ' 28		1.0 [3]	0.80 [2]	0.8	
Construction site - Outdoors ' 29		1.0 [3]	1.0 [3]	1	
Residential grounds - Outdoors ' 30		1.0 [3]	1.0 [3]	1	
School grounds - Outdoors ' 31		1.0 [3]	1.0 [3]	1	
Sports arena - Outdoors ' 32		1.0 [3]	1.0 [3]	1	
Park/golf course - Outdoors ' 33		1.0 [3]	1.0 [3]	1	
Other location - Outdoors ' 34		1.0 [3]	1.0 [3]	1	
Not specified - Outdoors ' 35		1.0 [3]	1.0 [3]	1	
Train/subway - In vehicle ' 36		1.0 [3]	0.90 [2]	0.9	
Airplane - In vehicle ' 37		0.0 [3]	0.90 [2]	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b The PROX factor is assumed to be the same for each source category for this pollutant.

^c Telephone switching center

Diesel PM Microenvironmental Factors by Microenvironment

HAPEM Microenvironment	ADD (: g/m ³)	PROX [Data Code] ^a		PEN [Data Code] ^a	MULT = PROX < PEN		Reference Sources
		Onroad ^b	Major, area, and nonroad ^c		Onroad ^d	Major, area, and nonroad ^d	
1. Car - In vehicle		1.76 [1]	1.0 [3]	0.63 [1]	1.1088	0.63	TL33
2. Bus - In vehicle		1.76 [2]	1.0 [3]	0.63 [2]	1.1088	0.63	
3. Truck - In vehicle		1.76 [2]	1.0 [3]	0.63 [2]	1.1088	0.63	
4. Other - In vehicle		1.76 [2]	1.0 [3]	0.63 [2]	1.1088	0.63	
5. Public garage - Indoors		1.0 [3]	1.0 [3]	0.75 [2]	0.75	0.75	
6. Parking lot/garage - Outdoors		1.45 [2]	1.0 [3]	1.0 [3]	1.45	1	
7. Near road - Outdoors		1.45 [1]	1.0 [3]	1.0 [3]	1.45	1	TL33
8. Motorcycle - Outdoors		1.45 [2]	1.0 [3]	1.0 [3]	1.45	1	
9. Service station - Indoors		1.0 [3]	1.0 [3]	0.75 [2]	0.75	0.75	
10. Service station - Outdoors		1.45 [2]	1.0 [3]	1.0 [3]	1.45	1	
11. Residential garage - Indoors		1.0 [3]	1.0 [3]	0.65 [2]	0.65	0.65	
12. Other repair shop - Indoors		1.0 [3]	1.0 [3]	0.75 [2]	0.75	0.75	
13. Residence (no CO source) - Indoors		1.0 [3]	1.0 [3]	0.74 [1]	0.74	0.74	TL23, TL27, TL29, TL30, TL32, TL34, TL35, TL39
14. Residence (gas stove) - Indoors		1.0 [3]	1.0 [3]	0.56 [1]	0.56	0.56	TL39
15. Residence (attached garage) - Indoors		1.0 [3]	1.0 [3]	0.65 [2]	0.65	0.65	
16. Residence (stove and garage) - Indoors		1.0 [3]	1.0 [3]	0.65 [2]	0.65	0.65	
17. Office - Indoors		1.0 [3]	1.0 [3]	0.54 [1]	0.54	0.54	TL27
18. Store - Indoors		1.0 [3]	1.0 [3]	0.76 [1]	0.76	0.76	TL27
19. Restaurant - Indoors		1.0 [3]	1.0 [3]	0.75 [2]	0.75	0.75	
20. Manufacturing facility - Indoors		1.0 [3]	1.0 [3]	0.75 [2]	0.75	0.75	
21. School - Indoors		1.0 [3]	1.0 [3]	0.69 [1]	0.69	0.69	TL27
22. Church - Indoors		1.0 [3]	1.0 [3]	0.76 [1]	0.76	0.76	TL27
23. Shopping mall - Indoors		1.0 [3]	1.0 [3]	0.76 [1]	0.76	0.76	TL27
24. Auditorium - Indoors		1.0 [3]	1.0 [3]	0.75 [2]	0.75	0.75	
25. Health care facility - Indoors		1.0 [3]	1.0 [3]	0.76 [1]	0.76	0.76	TL27
26. Other public building - Indoors		1.0 [3]	1.0 [3]	0.75 [2]	0.75	0.75	
27. Other location - Indoors		1.0 [3]	1.0 [3]	0.75 [2]	0.75	0.75	
28. Not specified - Indoors		1.0 [3]	1.0 [3]	0.95 [1]	0.95	0.95	TL22
29. Construction site - Outdoors		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
30. Residential grounds - Outdoors		1.0 [3]	1.0 [3]	1.0 [3]	1	1	

HAPEM Microenvironment	ADD (: g/m ³)	PROX [Data Code] ^a		PEN [Data Code] ^a	MULT = PROX < PEN		Reference Sources
		Onroad ^b	Major, area, and nonroad ^c		Onroad ^d	Major, area, and nonroad ^d	
31. School grounds - Outdoors		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
32. Sports arena - Outdoors		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
33. Park/golf course - Outdoors		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
34. Other location - Outdoors		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
35. Not specified - Outdoors		1.0 [3]	1.0 [3]	1.0 [3]	1	1	
36. Train/subway - In vehicle		1.76 [2]	1.0 [3]	0.63 [2]	1.1088	0.63	
37. Airplane - In vehicle		0.0 [3]	0.0 [3]	0.90 [2]	0	0	

^a Data Code: 1 = value obtained from literature; 2 = value obtained using grouping scheme; 3 = default value.

^b Onroad vehicle source category (see text).

^c Major, area, and nonroad-mobile source categories (see main report text).

^d The MULT factor is the product of the PROX factor and the PEN factor for the onroad vehicle source category and for the major, area, and nonroad-mobile source categories for this pollutant.

Formula: Microenvironmental concentration, $\mu\text{g}/\text{m}^3 = \text{ADD} + (\text{PROX})(\text{PEN})(\text{monitor concentration, } \mu\text{g}/\text{m}^3)$.

Abbreviations: ADD = additive factor; PROX = proximity factor; PEN = penetration factor; MULT = PROX < PEN.