Table S1. Details of the AC-dust sampling sites

Sample No.	Area	GPS Coordinates
1	A1 N7 1 · 1	26°35'06.9"N 50°02'11.0"E
2		26°35'18.8"N 50°02'31.7"E
3	- Al-Nabiah	26°31'08.3"N 50°00'08.6"E
4		26°31'06.0"N 50°00'10.2"E
5		26°29'37.5"N 50°01'50.7"E
6	Al-Qatif-Agricultural	26°27'44.3"N 50°01'33.4"E
7	1	26°31'36.8"N 49°59'37.9"E
8	Al-Qatif-Industrial	26°30'14.9"N 50°01'58.2"E
9		26°34'57.4"N 50°02'09.6"E
10		26°35'01.9"N 50°01'53.2"E
11		26°26'29.7"N 50°03'02.5"E
12		26°27'51.1"N 50°00'59.4"E
13	Al-Qatif-Residential	26°25'56.9"N 50°00'42.9"E
14		26°25'56.9"N 50°00'42.9"E
15		26°30'47.6"N 49°59'42.5"E
16	Saihat-Residential	26°30'50.3"N 49°59'22.6"E
17		26°30'39.2"N 49°59'01.8"E
18		26°30'18.0"N 50°02'04.1"E

Table S2. Details about the AC filter dust sample such as area of the room, time span of filter replacement or cleaning, presence or absence of smoking, and cooking in the building etc.

			<u>- </u>
question	Answer	question	answer
Zone:	Resdential	Zone:	Resdential
Sample number:	1	Sample number:	2
Site:	Saihat	Site:	Saihat
Floor:	Ground floor	Floor:	Ground floor
Sample collector name:	Hasan saho	Sample collector name:	Hasan saho
Date-Time:	21/1/2019-7:30 PM	Date-Time:	21/1/2019-8:15 PM
Air conditioner (AC)	Media - split - 2 ton.	Air conditioner (AC)	LG - split - 2 ton.
company-type-weight:		company-type-weight : When last time has the filter	•
When last time has the filter	12 months	been cleaned up?	6 months
been cleaned up? Is there smoker in the		Is there smoker in the	
place?	No	place?	No
Do you cock in the place? if		Do you cock in the place? if	
you cock		you cock	Yes
How many times do you	No cock	How many times do you	Five time in every week
cock in the place?		cock in the place?	,
Are there children or elderly		Are there children or elderly	2 shilders
? '	No	?	2 children
How much of time do you	8 hours	How much of time do you	14-16 hours
spend in the place?	8 Hours	spend in the place?	14-10 110013
When does the AC usually	4 hours at morning	When does the AC usually	
run at morning-afternoon-	4 hours at night	run at morning-afternoon-	Afternoon-night
night ?	4 Hours at Hight	night ?	
question	Answer	question	Answer
Zone:	Resdential	Zone:	Resdential
Sample number:	3	Sample number:	4
Site:	Saihat	Site:	Saihat
Floor:	Ground floor	Floor:	Ground floor
Sample collector name:	Hasan saho	Sample collector name:	Hasan saho
Date-Time:	21/1/2019-10:00 PM	Time:	21/1/2019-10:25PM
Air conditioner (AC)	Mitsubishi – window-1.5	Air conditioner (AC)	22/1/2015 10:25: 111
1		1	Gree – split – 2 tons.
company-type-weight :	ton.	company-type-weight :	-
When last time has the filter	16 months	When last time has the filter	7 months
been cleaned up?	20 1110110113	been cleaned up?	7 11011015
Is there smoker in the	N-	Is there smoker in the	N-
place?	No	place?	No
Do you cock in the place? if		Do you cock in the place? if	
you cock	Yes	you cock	
			Every day except Friday
How many times do you	Every day	How many times do you	
cock in the place?		cock in the place?	
Are there children or elderly	1 child	Are there children or elderly	2 shildren
?	1 child	?	3 children
How much of time do you		How much of time do you	_
spend in the place?	12-14 hours	spend in the place?	12-16 hours
When does the AC usually			
I Whon door the AC usually		When does the AC usually	
run at morning-afternoon- night ?	Afternoon-night	run at morning-afternoon- night ?	Afternoon-night

Zone: Industrial Sample number: 7 Site: Qatif Floor: Ground floor Sample collector name: Mustafa al-hassan Date-Time: 20/1/2019-7:40 PM Air conditioner (AC) company-type-weight: When last time has the filter been cleaned up? Is there smoker in the place? Do you cock in the place? if you cock How many times do you cock in the place? Are there children or elderly ? How much of time do you spend in the place? When does the AC usually run at morning-afternoon night? comment For Painting metal	question	Answer
Site: Qatif Floor: Ground floor Sample collector name: Mustafa al-hassan Date-Time: 20/1/2019-7:40 PM Air conditioner (AC) company-type-weight: daewoo – window – 2 tons. When last time has the filter been cleaned up? Is there smoker in the place? Do you cock in the place? if you cock How many times do you cock in the place? Are there children or elderly ? How much of time do you spend in the place? When does the AC usually run at morning-afternoon- night? Mustafa al-hassan 20/1/2019-7:40 PM daewoo – window – 2 tons. No No No No No No 8 hours	Zone:	Industrial
Floor: Ground floor Sample collector name: Mustafa al-hassan Date-Time: 20/1/2019-7:40 PM Air conditioner (AC) company-type-weight: daewoo – window – 2 tons. When last time has the filter been cleaned up? Is there smoker in the place? Do you cock in the place? if you cock How many times do you cock in the place? Are there children or elderly ? How much of time do you spend in the place? When does the AC usually run at morning-afternoon night? Mustafa al-hassan daewoo – window – 2 tons. 20 months No No No No No 8 hours	Sample number:	7
Sample collector name: Mustafa al-hassan Date-Time: 20/1/2019-7:40 PM Air conditioner (AC) company-type-weight: daewoo – window – 2 tons. When last time has the filter been cleaned up? Is there smoker in the place? Do you cock in the place? if you cock How many times do you cock in the place? Are there children or elderly ? How much of time do you spend in the place? When does the AC usually run at morning-afternoon night? Mustafa al-hassan 20/1/2019-7:40 PM Aewoo – window – 2 tons. No No No No No No 8 hours	Site:	Qatif
Date-Time: 20/1/2019-7:40 PM Air conditioner (AC) company-type-weight: daewoo – window – 2 tons. When last time has the filter been cleaned up? Is there smoker in the place? Do you cock in the place? if you cock How many times do you cock in the place? Are there children or elderly ? How much of time do you spend in the place? When does the AC usually run at morning-afternoon night? 20 months No No No No No 4 hours at morning 4 hours afternoon	Floor:	Ground floor
Air conditioner (AC) company-type-weight: When last time has the filter been cleaned up? Is there smoker in the place? Do you cock in the place? if you cock How many times do you cock in the place? Are there children or elderly ? How much of time do you spend in the place? When does the AC usually run at morning-afternoon night? daewoo – window – 2 tons. 20 months No No No No No 4 hours at morning 4 hours afternoon	Sample collector name:	Mustafa al-hassan
company-type-weight: When last time has the filter been cleaned up? Is there smoker in the place? Do you cock in the place? if you cock How many times do you cock in the place? Are there children or elderly? How much of time do you spend in the place? When does the AC usually run at morning-afternoonnight? daewoo – window – 2 tons. 20 months No No No No 4 hours at morning 4 hours afternoon	Date-Time:	20/1/2019-7:40 PM
company-type-weight: When last time has the filter been cleaned up? Is there smoker in the place? Do you cock in the place? if you cock How many times do you cock in the place? Are there children or elderly? How much of time do you spend in the place? When does the AC usually run at morning-afternoonnight? 20 months No No No 4 hours at morning 4 hours afternoon	Air conditioner (AC)	daewoo – window – 2 tons
been cleaned up? Is there smoker in the place? Do you cock in the place? if you cock How many times do you cock in the place? Are there children or elderly? How much of time do you spend in the place? When does the AC usually run at morning-afternoonnight?	company-type-weight :	daewoo – wiiidow – 2 tolis.
been cleaned up? Is there smoker in the place? Do you cock in the place? if you cock How many times do you cock in the place? Are there children or elderly? How much of time do you spend in the place? When does the AC usually run at morning-afternoonnight? No 8 hours 4 hours at morning 4 hours afternoon	When last time has the filter	20 months
place? Do you cock in the place? if you cock How many times do you cock in the place? Are there children or elderly? How much of time do you spend in the place? When does the AC usually run at morning-afternoonnight?	been cleaned up?	20 111011113
Do you cock in the place? if you cock How many times do you cock in the place? Are there children or elderly ? How much of time do you spend in the place? When does the AC usually run at morning-afternoon night? No 8 hours 4 hours at morning 4 hours afternoon	is the shirt and	No.
you cock How many times do you cock in the place? Are there children or elderly ? How much of time do you spend in the place? When does the AC usually run at morning-afternoon- night? No 8 hours 4 hours at morning 4 hours afternoon		140
How many times do you cock in the place? Are there children or elderly? How much of time do you spend in the place? When does the AC usually run at morning-afternoonnight? No No No No 4 hours	' '	
How many times do you cock in the place? Are there children or elderly? How much of time do you spend in the place? When does the AC usually run at morning-afternoonnight? A hours at morning 4 hours afternoon	,	No
Are there children or elderly ? How much of time do you spend in the place? When does the AC usually run at morning-afternoonnight? A hours at morning 4 hours afternoon		
Phow much of time do you spend in the place? When does the AC usually run at morning-afternoonnight? No 8 hours 4 hours at morning 4 hours afternoon	cock in the place?	
PHow much of time do you spend in the place? When does the AC usually run at morning-afternoonnight? 4 hours at morning 4 hours afternoon	Are there children or elderly	No.
spend in the place? When does the AC usually run at morning-afternoon-night? 4 hours at morning 4 hours afternoon	?	110
spend in the place? When does the AC usually run at morning-afternoon-night? 4 hours at morning 4 hours afternoon		8 hours
run at morning-afternoon- night ?		0.11041.5
run at morning-afternoon- night ? 4 hours afternoon		4 hours at morning
night ?	_	
comment For Painting metal		
	comment	For Painting metal

question	Answer	
Zone:	Industrial	
Sample number:	5	
Site:	Qatif	
Floor:	Ground floor	
Sample collector name:	Mustafa al-hassan	
Date-Time:	20/1/2019-7:00 PM	
Air conditioner (AC)	Al-zameel – window – 1.5	
company-type-weight :	ton.	
When last time has the filter	2 months	
been cleaned up?	3 months	
Is there smoker in the	Somo costumors	
place?	Some costumers	
Do you cock in the place? if		
you cock	No.	
How many times do you	l No	
cock in the place?		
Are there children or elderly	No	
?	No	
How much of time do you	8 hours	
spend in the place?		
When does the AC usually	4 hours at morning	
run at morning-afternoon-	1	
night ?	4 flours afterfloor	
comment	For Car maintaince	
Date-Time: Air conditioner (AC) company-type-weight: When last time has the filter been cleaned up? Is there smoker in the place? Do you cock in the place? if you cock How many times do you cock in the place? Are there children or elderly ? How much of time do you spend in the place? When does the AC usually run at morning-afternoon- night?	Al-zameel — window — 1.5 ton. 3 months Some costumers No No 8 hours 4 hours at morning 4 hours afternoon	

question	Answer
Zone:	Industrial
Sample number:	8
Site:	Qatif
Floor:	Ground floor
Sample collector name:	Mustafa al-hassan
Date-Time:	20/1/2019-7:55 PM
Air conditioner (AC) company-type-weight :	media – window – 2 tons.
When last time has the filter been cleaned up?	6 months
Is there smoker in the place?	No
Do you cock in the place? if you cock How many times do you cock in the place?	No
Are there children or elderly ?	No
How much of time do you spend in the place?	8 hours
When does the AC usually run at morning-afternoon- night?	4 hours at morning 4 hours afternoon
comment	For manufacturing plastic

comment	For manufacturing plastic
question	Answer
Zone:	Industrial
Sample number:	6
Site:	Qatif
Floor:	Ground floor
Sample collector name:	Mustafa al-hassan
Date-Time:	20/1/2019-7:30 PM
Air conditioner (AC) company-type-weight :	LG – window – 2 tons.
When last time has the filter been cleaned up?	4 months
Is there smoker in the place?	No
Do you cock in the place? if you cock How many times do you cock in the place?	No
Are there children or elderly ?	No
How much of time do you spend in the place?	8 hours
When does the AC usually run at morning-afternoon- night?	4 hours at morning 4 hours afternoon
Comment	For Manufacturing glass

question	Answer	
Zone:	Residential	
Sample number:	11	
Site:	Qatif	
Floor:	Ground floor	
Sample collector name:	Ali Al-ekhwan	
Date-Time:	22/1/2019-5:30 PM	
Air conditioner (AC)	samsung – window – 2.0	
company-type-weight:	tons	
When last time has the filter	18 months	
been cleaned up?	18 months	
Is there smoker in the	N-	
place?	No	
Do you cock in the place? if		
you cock	4 times in a week	
How many times do you	4 times in a week	
cock in the place?		
Are there children or elderly	2	
?	2	
How much of time do you	14 hours	
spend in the place?		
When does the AC usually		
run at morning-afternoon-	Morning	
night ?		

question	Answer
Zone:	Agriculture
Sample number:	12
Site:	Qatif
Floor:	Ground floor
Sample collector name:	Ali al-ekhwan
Date-Time:	23/1/2019-5:30 PM
Air conditioner (AC) company-type-weight :	Al-zameel-window-2 tons
When last time has the filter been cleaned up?	Never been cleaned
Is there smoker in the place?	No
Do you cock in the place? if you cock How many times do you cock in the place?	Every day
Are there children or elderly ?	No
How much of time do you spend in the place?	16 hours
When does the AC usually run at morning-afternoon- night?	Night

question	answer
Zone:	Residential
Sample number:	9
Site:	Qatif
Floor:	Ground floor
Sample collector name:	Ali Al-ekhwan
Date-Time:	22/1/2019 4:00 PM
Air conditioner (AC) company-type-weight :	Daikin – split – 2.5 tons
When last time has the filter been cleaned up?	12 months
Is there smoker in the place?	No
Do you cock in the place? if you cock How many times do you cock in the place?	3-4 times in a week
Are there children or elderly ?	2
How much of time do you spend in the place?	10-12 hours
When does the AC usually run at morning-afternoon- night?	Night

question	Answer
Zone:	Residential
Sample number:	10
Site:	Qatif
Floor:	Ground floor
Sample collector name:	Ali Al-ekhwan
Date-Time:	22/1/2019 5:10 PM
Air conditioner (AC) company-type-weight:	Ariston – split – 3 tons
When last time has the filter been cleaned up?	4 months
Is there smoker in the place?	1
Do you cock in the place? if you cock How many times do you cock in the place?	No
Are there children or elderly ?	No
How much of time do you spend in the place?	12 hours
When does the AC usually run at morning-afternoon- night?	Overnight

question Answer Zone: Residential Sample number: 15 Site: Al-nabiah Floor: Ground floor Sample collector name: Abdullah al-qahtani Date-Time: 23/1/2019-8:15 PM Air conditioner (AC) company-type-weight: Craft-split-2.5 tons When last time has the filter been cleaned up? Is there smoker in the place? Do you cock in the place? if you cock How many times do you cock in the place? Are there children or elderly ? How much of time do you spend in the place? When does the AC usually run at morning-afternoon- night? Al-nabiah Al-nabiah Ground floor Craft-split-2.5 tons 4 months Every day except Friday 1 12 hours			
Sample number: Site: Al-nabiah Floor: Ground floor Sample collector name: Abdullah al-qahtani Date-Time: Air conditioner (AC) company-type-weight: When last time has the filter been cleaned up? Is there smoker in the place? Do you cock in the place? if you cock How many times do you cock in the place? Are there children or elderly ? How much of time do you spend in the place? When does the AC usually run at morning-afternoon-	question	Answer	
Site: Al-nabiah Floor: Ground floor Sample collector name: Abdullah al-qahtani Date-Time: 23/1/2019-8:15 PM Air conditioner (AC) company-type-weight: Craft-split-2.5 tons When last time has the filter been cleaned up? Is there smoker in the place? Do you cock in the place? if you cock How many times do you cock in the place? Are there children or elderly ? How much of time do you spend in the place? When does the AC usually run at morning-afternoon- Addullah al-qahtani 23/1/2019-8:15 PM craft-split-2.5 tons 4 months Every day except Friday 1 12 hours	Zone:	Residential	
Floor: Ground floor Sample collector name: Abdullah al-qahtani Date-Time: 23/1/2019-8:15 PM Air conditioner (AC) company-type-weight: Craft-split-2.5 tons When last time has the filter been cleaned up? Is there smoker in the place? Do you cock in the place? if you cock How many times do you cock in the place? Are there children or elderly? How much of time do you spend in the place? When does the AC usually run at morning-afternoon- Addullah al-qahtani 23/1/2019-8:15 PM craft-split-2.5 tons 4 months Every day except Friday 1 12 hours	Sample number:	15	
Sample collector name: Date-Time: Date-Time: Air conditioner (AC) company-type-weight: When last time has the filter been cleaned up? Is there smoker in the place? Do you cock in the place? if you cock How many times do you cock in the place? Are there children or elderly ? How much of time do you spend in the place? When does the AC usually run at morning-afternoon- Addullah al-qahtani 23/1/2019-8:15 PM craft-split-2.5 tons 4 months Every day except Friday Every day except Friday 1 12 hours	Site:	Al-nabiah	
Date-Time: 23/1/2019-8:15 PM Air conditioner (AC) company-type-weight: When last time has the filter been cleaned up? Is there smoker in the place? Do you cock in the place? if you cock How many times do you cock in the place? Are there children or elderly ? How much of time do you spend in the place? When does the AC usually run at morning-afternoon- Craft-split-2.5 tons 4 months Every day except Friday Every day except Friday 1 12 hours	Floor:	Ground floor	
Air conditioner (AC) company-type-weight: When last time has the filter been cleaned up? Is there smoker in the place? Do you cock in the place? if you cock How many times do you cock in the place? Are there children or elderly ? How much of time do you spend in the place? When does the AC usually run at morning-afternoon- Craft-split-2.5 tons 4 months Every day except Friday Every day except Friday 1 12 hours	Sample collector name:	Abdullah al-qahtani	
company-type-weight: When last time has the filter been cleaned up? Is there smoker in the place? Do you cock in the place? if you cock How many times do you cock in the place? Are there children or elderly? How much of time do you spend in the place? When does the AC usually run at morning-afternoon-	Date-Time:	23/1/2019-8:15 PM	
Company-type-weight: When last time has the filter been cleaned up? Is there smoker in the place? Do you cock in the place? if you cock How many times do you cock in the place? Are there children or elderly? How much of time do you spend in the place? When does the AC usually run at morning-afternoon-	Air conditioner (AC)	craft colit 2 5 tons	
been cleaned up? Is there smoker in the place? Do you cock in the place? if you cock How many times do you cock in the place? Are there children or elderly? How much of time do you spend in the place? When does the AC usually run at morning-afternoon- 4 months Every day except Friday Every day except Friday 1 1 Afternoon	company-type-weight:	crait-split-2.5 toris	
been cleaned up? Is there smoker in the place? Do you cock in the place? if you cock How many times do you cock in the place? Are there children or elderly? How much of time do you spend in the place? When does the AC usually run at morning-afternoon-	When last time has the filter	4 months	
Do you cock in the place? if you cock How many times do you cock in the place? Are there children or elderly ? How much of time do you spend in the place? When does the AC usually run at morning-afternoon-	been cleaned up?	4 111011013	
Do you cock in the place? if you cock How many times do you cock in the place? Are there children or elderly ? How much of time do you spend in the place? When does the AC usually run at morning-afternoon-	Is there smoker in the	1	
you cock How many times do you cock in the place? Are there children or elderly ? How much of time do you spend in the place? When does the AC usually run at morning-afternoon- Every day except Friday 1 1 Afternoon	place?	1	
How many times do you cock in the place? Are there children or elderly? How much of time do you spend in the place? When does the AC usually run at morning-afternoon-	Do you cock in the place? if		
How many times do you cock in the place? Are there children or elderly? How much of time do you spend in the place? When does the AC usually run at morning-afternoon- Afternoon	you cock	Eveny day except Friday	
Are there children or elderly ? How much of time do you spend in the place? When does the AC usually run at morning-afternoon-	How many times do you	Every day except rilday	
? 1 How much of time do you spend in the place? 12 hours When does the AC usually run at morning-afternoon- Afternoon	cock in the place?		
How much of time do you spend in the place? When does the AC usually run at morning-afternoon- Afternoon	Are there children or elderly	1	
spend in the place? When does the AC usually run at morning-afternoon- Afternoon	?	<u> </u>	
spend in the place? When does the AC usually run at morning-afternoon- Afternoon	How much of time do you	12 hours	
run at morning-afternoon- Afternoon	spend in the place?	12 110013	
	When does the AC usually		
night ?	run at morning-afternoon-	Afternoon	
	night ?		

question	Answer	
Zone:	Residential	
Sample number:	16	
Site:	Al-nabiah	
Floor:	Ground floor	
Sample collector name:	Abdullah al-qahtani	
Date-Time:	23/1/2019-9:00 PM	
Air conditioner (AC)	whirlpool-window-1.5 tons	
company-type-weight:	·	
When last time has the filter	4 months	
been cleaned up?	4 1110110115	
Is there smoker in the	No	
place?	l No	
Do you cock in the place? if		
you cock	Every day except weekend	
How many times do you		
cock in the place?		
Are there children or elderly	No	
?		
How much of time do you	9 hours	
spend in the place?	3 110013	
When does the AC usually		
run at morning-afternoon-	Night	
night ?		

question	Answer		
Zone:	residential		
Sample number:	17		
Site:	Al-nabiah		
Floor:	Ground floor		
Sample collector name:	Abdullah al-qahtani		
Date-Time:	23/1/2019-9:25 PM		
Air conditioner (AC)	Lloyd-window-1.5 tons		
company-type-weight :			
When last time has the filter	11 month		
been cleaned up?			
Is there smoker in the	No		
place?			
Do you cock in the place? if	3-4 days in a week		
you cock			
How many times do you			
cock in the place?			
Are there children or elderly ?	3		
How much of time do you	15 hours		
spend in the place?			
When does the AC usually	Morning		
run at morning-afternoon- night ?			

question	answer		
Zone:	Agriculture		
Sample number:	13		
Site:	Qatif		
Floor:	Ground floor		
Sample collector name:	Ali al-ekhwan		
Date-Time:	23/1/2019-5:50 PM		
Air conditioner (AC)	comfort-window-1.5 tons		
company-type-weight:	connort-window-1.5 tons		
When last time has the filter	Never been cleaned		
been cleaned up?	ivever been cleaned		
Is there smoker in the	2		
place?			
Do you cock in the place? if			
you cock	Every day		
How many times do you			
cock in the place?			
Are there children or elderly	No		
?	140		
How much of time do you	15 hours		
spend in the place?			
When does the AC usually	Night		
run at morning-afternoon-			
night ?			

question	Answer		
Zone:	Residential		
Sample number:	18		
Site:	Al-nabiah		
Floor:	Ground floor		
Sample collector name:	Abdullah al-qahtani		
Date-Time:	23/1/2019-9:40 PM		
Air conditioner (AC) company-type-weight :	hitachi-window-2 tons		
When last time has the filter been cleaned up?	2 month		
Is there smoker in the place?	1		
Do you cock in the place? if you cock How many times do you cock in the place?	Every day		
Are there children or elderly ?	No		
How much of time do you spend in the place?	13 hours		
When does the AC usually run at morning-afternoon- night?	Afternoon-Night		

question	Answer		
Zone:	Agriculture		
Sample number:	14		
Site:	Qatif		
Floor:	Ground floor		
Sample collector name:	Ali al-ekhwan		
Date-Time:	23/1/2019-7:00 PM		
Air conditioner (AC) company-type-weight :	comfort-window-1.5 tons		
When last time has the filter been cleaned up?	3 years		
Is there smoker in the place?	1		
Do you cock in the place? if you cock How many times do you cock in the place?	Every day		
Are there children or elderly ?	No		
How much of time do you spend in the place?	12-14 hours		
When does the AC usually run at morning-afternoon- night?	Night		

Table S3. Parameters along with symbols and values used to estimate the health risk.

Parameters	Symbol	Units	Values	References
Concentrations of toxic metals	C	mg kg ⁻¹		
Reference doses	Rfd	mg kg ⁻¹ day ⁻¹	Oral RfD: 1.0×10 ⁻³ (Cd) 3.0×10 ⁻³ (Cr), 3.7×10 ⁻² (Cu)	Askarova and Mussagaliyeva, (2014); Ferreira-
			2.4-×10 ⁻² (Mn), 3.5×10 ⁻³ (Pb), 3.0×10 ⁻¹ (Zn), Dermal RfD: 1.0×10 ⁻⁵ (Cd), 6.00×10 ⁻⁵ (Cr), 0.012 (Cu) 4.6×10 ⁻² (Mn), 5.25×10 ⁻⁵ (Pb), 6.0×10 ⁻² (Zn), Inhalation RfD: 1.0×10 ⁻⁵ (Cd), 3.00×10 ⁻³ (Cr), 0.04 (Cu) 5.0×10 ⁻⁵ (Mn), 3.5×10 ⁻³ (Pb), 3.0×10 ⁻² (Zn), Ingestion SF: 8.5×10 ⁻³ (Pb)	Baptista and De Miguel, (2005)
Slope factor (SF)	SF	mg kg ⁻¹ day ⁻¹	Inhalation SF: 6.3 (Cd), 42 (Cr), Ingestion SF:	Ferreira-Baptista and De Miguel, (2005); Lu et al., (2014); USDOE, (2011)
Dermal absorption factor	ABS	Unit less	8.5×10 ⁻³ (Pb) 0.1 (Cd), Cr (0.04), Cu (0.1), Mn (0.001), Pb (0.006) and (0.02) Zn	
Exposed skin exposed surface area	SA	m^2	5700 ^a , 2800 ^b	Askarova and Mussagaliyeva, (2014);
Inhalation rate	InhR	$m^3 day^{-1}$	20 ^a , 7.6 ^b	USEPA (2002); Zheng et al., (2010)
Exposure frequency	EF	Day year ⁻¹	350	US-EPA, (2002)
Exposure duration	ED	Year	$30^{a}, 6^{b}$	US-EPA, (2002)
Average time cancer	ATcan	Days	70×365	US-EPA, (2002)
Average time non cancer aAdults and bChildren	ATnon can	Days	30 × 365	US-EPA, (2002)

^aAdults and ^bChildren