

ADDITIONAL INFORMATION ABOUT THE FIELDS IN THE UDEM/IRSST SILICA OCCUPATIONAL EXPOSURE DATABASE

The first spreadsheet in the Excel file contains all the data used for the publication

The following table shows, shaded in grey, the coded information for which there is another spreadsheet in the file with the bilingual explanation of the number code appearing in the column

Column Number	Column Title	Additional Information
1	Line No	This field was left in the OEDB to be able to trace this version to previous ones as some of the information was deleted since the beginning of the work in 2008.
2	Document ID number	This alphanumeric code refers to the number used in the original reference database software. The full reference associated to it appears on the second spreadsheet in the file.
3	Document type	
4	Descriptive data quality	
5	Sampling methodology quality	
6	Sampling year (or years as a range)	
7	Worker ID	This identifies a specific worker only if the sampling type (column 45) is in the “Breathing zone”
8	Trade or workstation as written in the document	Information in the language of the original document
9	Task as written in the document	Information in the language of the original document
10	Tool as written in the document	Information in the language of the original document
11	Brand and model of tool as written in the document	Information in the language of the original document
12	Material as written in the document	Information in the language of the original document
13	% of crystalline silica in material documented	
14	% of crystalline silica (form	

Column Number	Column Title	Additional Information
	undetermined) in material	
15	% of quartz in material	
16	% of cristobalite in material	
17	% of tridymite in material	
18	% of tripoli in material	
19	Assay method used for bulk sampling	
20	Trade	These trade definitions relate to the Quebec legal and unions collective bargaining environment
21	Task	
22	Material	
23	Tool	
24	Construction site class	These construction site classes relate to the Quebec unions collective bargaining environment
25	Construction site type	
26	Contaminant measured	Some of the names appearing in this section are actually synonyms for all intents and purposes but they appear in the way they were written in the original documents. For the purposes of calculations, “Respirable quartz”, “Respirable silica” and “Respirable crystalline silica” were treated as synonyms when separating quartz from other forms but all specific forms and synonyms were used for RCS calculations
27	Number (n) of samples associated with the measurement value	
28	Arithmetic mean (n>1)	<ul style="list-style-type: none"> • If the value reported in the document was “below the limit of detection” or “between the limit of detection and the limit of quantification” the value entered in the field is -1. • The comma “,” is used to define decimal place. • When no data is available for this field, it is left blank
29	Standard deviation (n>1)	<ul style="list-style-type: none"> • When no data is available for this field, it is left blank
30	Geometric mean (GM) (n>1)	<ul style="list-style-type: none"> • If the value reported in the document was “below the limit of detection” or “between the limit of detection and the limit of quantification” the value entered in the field is -1. • The comma “,” is used to define decimal place.

Column Number	Column Title	Additional Information
		<ul style="list-style-type: none"> When no data is available for this field, it is left blank
31	Geometric standard deviation (GSD) (n>1)	<ul style="list-style-type: none"> When no data is available for this field, it is left blank
32	Estimated GM (if GM not provided by the authors of the document)	<ul style="list-style-type: none"> If the value reported in the document was “below the limit of detection” or “between the limit of detection and the limit of quantification” in the other statistical summary fields the value entered in this field was calculated, when the information was available, using the detection limit and the sampling time. The comma “,” is used to define decimal place. When no data is available for this field, it is left blank
33	Method used to estimate the GM	Method mentioned here refers to the reference: Lavoué, J., D. Bégin, C. Beaudry, and M. Gérin: Monte Carlo simulation to reconstruct formaldehyde exposure levels from summary parameters reported in the literature. <i>Ann. Occup. Hyg.</i> 51(2):161–172 (2007).
34	Estimated GSD (if GSD not provided by the authors of the document)	<ul style="list-style-type: none"> If the value reported in the document was “below the limit of detection” or “between the limit of detection and the limit of quantification” in the other statistical summary fields the value entered in this field was calculated, when the information was available, using the detection limit and the sampling time. The comma “,” is used to define decimal place. When no data is available for this field, it is left blank
35	Method used to estimate the GSD	Method mentioned here refers to the reference: Lavoué, J., D. Bégin, C. Beaudry, and M. Gérin: Monte Carlo simulation to reconstruct formaldehyde exposure levels from summary parameters reported in the literature. <i>Ann. Occup. Hyg.</i> 51(2):161–172 (2007).
36	Minimum (n>1)	<ul style="list-style-type: none"> If the value reported in the document was “below the limit of detection” or “between the limit of detection and the limit of quantification” the value entered in the field is -1. The comma “,” is used to define decimal place. When no data is available for this field, it is left blank
37	5th percentile (n>1)	
38	10th percentile (n>1)	
39	Median (n>1)	
40	90th percentile (n>1)	
41	95th percentile (n>1)	
42	Maximum (n>1)	

Column Number	Column Title	Additional Information
43	Other summary statistic value (n>1)	
44	Other summary statistic (n>1)	
45	Sampling type	
46	Measurement associated with another one and reason for it in the database?	
47	Measurement association ID	The coded number appearing in this section bears similar values to the ones appearing in column 7 but there is no relationship between the two. The numbering system is not systematic but tries, with the help of column 48, to facilitate the identification of which lines should be compared to which
48	Measurement association details	
49	Raw measurement (n=1) (mg/m ³)	<ul style="list-style-type: none"> • This is the single measurement value as reported in the document. • If the value reported in the document was “below the limit of detection” or “between the limit of detection and the limit of quantification” the value entered in the field is -1. • The comma “,” is used to define decimal place.
50		The unit column has been eliminated from the original database and mg/m ³ has been added to the title of each column containing measurement values as there was no other unit used in the OEDB.
51	Sampling time (minutes)	
52	Sampling time provided or estimated	The two names provided are the ones on the only two individuals that did the coding of the OEDB
53	Sampling objective	

Column Number	Column Title	Additional Information
54	Measurement value interpreted as a function of the sampling objective	<ul style="list-style-type: none"> • This is the column used to produce the calculations in the original article. • If the value reported in column 49 (Raw measurement) in the document was “below the limit of detection” or “between the limit of detection and the limit of quantification” the value entered in this field is recalculated when the information is available using the analytical detection limit (column 62), the flow rate defined by the sampling method (column 58) and the sampling time (column 51). • If the number of samples is greater than one, the GM value (column 30) is used or if not available the Estimated GM (column 32) is used. • If the value is 5 in column 46 (Yes - to calculate the average exposure), the value shown here is the average exposure value. • The comma “,” is used to define decimal place.
55	Origin of the interpreted measurement value	The two names provided are the ones on the only two individuals that did the coding of the OEDB
56	PEV (Permissible exposure value)	Refers to the Quebec regulatory value (-2 means “Not applicable”) (this was a functional compromise to enable to use the entire column as a number field)
57	AAEV (adjusted average exposure value)	Refers to the Quebec regulatory value for unusual work schedules (-2 means “Not applicable”) (this was a functional compromise to enable the use of the entire column as a number fields)
58	Sampling method	
59	Analytical method class	
60	Specific analytical Method	
61	Details of the sampling and analytical methods	
62	Analytical detection limit (mg)	-1 means “Not Specified” (this was a functional compromise to enable the use of the entire column as number fields)
63	Work environment during sampling	
64	Contribution of second source to worker exposure	
65	Second source role	
66	Second source details	

Column Number	Column Title	Additional Information
67	Worker sampled received training on risks of silica exposure	
68	Presence of control measure during sampling other than RPE	<ul style="list-style-type: none"> • If the choice of this column is “Not specified” on one line, the content of the 7 following columns, “69 / 70 / 71 / 72 / 73 / 74 / 75” is necessarily “Not applicable”. • If the choice of this column is “No” on one line, the content of the 7 following columns, “69 / 70 / 71 / 72 / 73 / 74 / 75” has to be “No”. • If the choice of this column is “Yes (5)” on one line, the content of the 7 following columns, “VentGen / ventAspP / ventAspO / proCHAr / proCHO / isoSrc / MaitrA,” can be either “Not specified”, “No”, or “Yes”.
69	General ventilation	
70	Local exhaust ventilation	
71	Exhaust ventilation on tool	
72	Material wetting	
73	Water spray on tool	
74	Separation from source	
75	Other control measure	
76	Control measures details	
77	RPE used during sampling	<ul style="list-style-type: none"> • If the choice in this column is “Not specified” or “No” on one line, the content of column 78 has to be “Not applicable”. • If the choice in this column is “Other response” or “Yes (5 to 8)” on one line, the content of column 78 can be all the choices except “Not applicable”.
78	Type of RPE used	
79	Photographs	This column has been removed because of copyright restrictions
80	Comments on RPE	
81	General comments	