

Supplementary material

Table S1. Questionnaire.

Instructions: For each question with numbered answers, use an X or tick in the box.	
Thank you for your participation	
SECTION A: BIOGRAPHICAL DETAILS	
1. What is your gender?	
Male	1
Female	2
2. How old are you?	
<input type="checkbox"/> years old	
SECTION B: OCCUPATIONAL DETAILS	
3. What is your job title/profession?	
Machine operator	1
Residential engineer	2
Driver	3
General worker	4
Other, please specify:	5
4. Which work task/site are you operating from? (Choose one answer)	
Crushing	1
Grinding	2
Blasting	3
Loading and offloading	4
Screening	5
Transporting	6
Final storage	7
Other, please specify:	8
5. How long have you been working on this site?	
<input type="checkbox"/> Years	
<input type="checkbox"/> Months	
<input type="checkbox"/> Days	
6. Approximately how many hours are you exposed per day?	
Less than 8 hours	1
8 hours	2
More than 8 hours	3
7. Are you provided with protective clothing (PPE)?	
No	0
Yes	1

8. Which type of PPE?

		No	Yes
8.1.	Not applicable	0	1
8.2.	Face shield	0	1
8.3.	Respirator	0	1
8.4.	Dust Mask	0	1
8.5.	Other, please specify: -----	0	1

9. Do you wear or use your PPE?

Never use	1
Occasionally/sometimes	2
Almost every time	3
At all times	4

10. In your work task, how often do you change your PPE?

Not applicable	1
Never change	2
Daily	3
Weekly	4
Monthly	5
Quarterly	6
Annually	7
Other, please specify: -----	8

Table S2. Risk rating determination band table (SIMRAC 2001).

Risk factor		Value	
PROBABILITY OF TWA EXPOSURE> OEL What is the level of exposure?	Exposure > OEL-c or exceeding the TWA-OEL more than threefold or mixture of exposure with an index of >3.	10	
	Exposure of more than or equal to OEL-TWA of or equal to OEL-TWA or mixture of exposure with an index between 1 and 3.	6	
	Exposure of more than or equal to 50% of the OEL and < OEL or mixture of exposure with an index between 0.5 and 1.	3	
	Exposure of more than or equal to 25% of the OEL and < 50% of the OEL or mixture of exposure with an index between 0.25 and 0.5.	1	
	Exposure of more than or equal to 10% of the OEL and < 25% of the OEL or mixture of exposure with an index between 0.1 and 0.25.	0.5	
EXPOSURE PERIOD How many times people are exposed to the event and for how long	Continuous exposure for 8-hour shift or more.	10	
	Continuous exposure for up to 6-hour shift - frequent, daily.	6	
	Continuous exposure for up to 2-hour shift - often weekly.	3	
	Short exposure periods, a few times per month.	2	
	Unusual, at least once yearly.	1	
	Rare.	0.5	
CONSEQUENCES OF EXPOSURE Severity of harm or damage that could occur	One or more mortality from an occupational disease.	100	
	Life threatening/disability injury or illness. Multiple occupational diseases cases. Miscarriage (very serious).	50	
	Irreversible health effects of concern or serious illness. Compensable occupational disease. Possible miscarriage (serious).	15	
	Reversible confirmed health effects. Occupational disease.	7	
	Minor ill health.	1	
Calculated risk	Band	Risk classification	Action
400 and above	AA	Very high risk	Consider discontinuation
200 to 399	A	High risk	Immediate action required
70 to 199	B	Moderate risk	Correction required
20 to 69	C	Low risk	Attention necessary
<20	D	Tolerable risk	Monitor

Red code: Very high risk level; Mustard code: High risk level; Yellow code: Moderate risk level; Green code: Low risk level; Lime code: tolerable risk level.