

Section C. Control Program

A control program is necessary when an assessment indicates there is a possibility of an exposure to a designated substance and that exposure may exceed any one of the TWA, STEL or CL for that substance. The control program that you put in place will need to address all of the incidences when exposure to high levels of the material may occur and the engineering controls, operational controls and Personal Protective Equipment (PPE) which will be used which will ensure that the exposure does not have a negative health effect on a worker.

Incidence #	Description of incident causing exposure	How often this incident may occur? (common, uncommon, rarely, accidental)	Total number of potentially exposed workers	Control Description (Engineering, Operational and PPE)	Other Controls
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5	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.

Examples

Incidence #	Description of incident causing exposure	How often this incident may occur? (common, uncommon, rarely, accidental)	Total number of potentially exposed workers	Control Description (Engineering, Operational and PPE)	Other Controls
1	Fumehood failure	rarely	1	Cap material, close sash, step back, Post FH and contact Fixit	
2.	Air exposure to the volatile chemical while dispensing	common	3	Always work in a fumehood with an open source of chemical, Personnel trained to work with material	
3	Spill of material	accidental	1	Cover material Exit room, Don appropriate PPE, prepare spill cleanup supplies, if safe to do so, clean up spill Report spill to Security.	If a respirator required, ensure it has been fit tested by personnel performing clean up. Personnel must be properly trained to clean up spill.
4.	Weighing out solid material to make a stock solution	common	1	Use a closed balance to contain small particles, wear P100 respirator or perform in a glove box,	If a respirator is required ensure it has been fit tested by personnel

These are just generic examples; every incidence of exposure will be unique and will likely have unique controls. Once complete and the JHSC has reviewed and accepted the Control Program, ensure you train your lab personnel and place this document in the SDS binder with the appropriate SDS. It might also be a good idea to post the Control Program in the lab (Bulletin Board) where it can easily be read and followed.

Section D. Control Program Signage

Place a completed copy of the sign template in a conspicuous location outside the lab, such as on the lab door or wall beside the lab door, where individuals will see it before entering the lab.

**This laboratory currently has a Designated
Substance in use.**

Designated substance in use:

Project end date:

**Please refer to the Designated Substance assessment within the SDS folder
for further information on exposure controls in place for protection of
workers.**

Schedule 2: Exposure Limits of Designated Substances (from O. Reg. 490/09)

Designated Substance [CAS No.]	Time-Weighted Average Limit (TWA), Short-Term Exposure Limit (STEL), Ceiling Limit (C) and Notations		
	TWA	STEL/C	Notations
Acrylonitrile [107-13-1]	2 ppm	C 10 ppm	Skin
Arsenic, elemental arsenic and inorganic compounds [7440-38-2], and organic compounds (only where both inorganic and organic compounds are present), as As.	0.01 mg/m ³	0.05 mg/m ³	
Asbestos – All forms [1332-21-4]	0.1 f/cc (a)		
Actinolite [77536-66-4]	0.1 f/cc (a)		
Amosite [12172-73-5]	0.1 f/cc (a)		
Anthophyllite [77536-67-5]	0.1 f/cc (a)		
Chrysotile [132207-32-0]	0.1 f/cc (a)		
Crocidolite [12001-28-4]	0.1 f/cc (a)		
Tremolite [77536-68-6]	0.1 f/cc (a)		
Benzene [71-43-2]	0.5 ppm	2.5 ppm	Skin
Coke Oven Emissions ¹	0.15 mg/m ³		
Ethylene oxide [75-21-8]	1 ppm	10 ppm	
	1.8 mg/m ³	18 mg/m ³	
Isocyanates, organic compounds			
Toluene diisocyanate (TDI) [584-84-9] [91-08-7]	0.005 ppm	C 0.02 ppm	
Methylene bisphenyl isocyanate (MDI) [101-68-8]	0.005 ppm	C 0.02 ppm	

Hexamethylene diisocyanate (HDI) [822-06-0]	0.005 ppm	C 0.02 ppm	
Isophorone diisocyanate (IPDI) [4098-71-9]	0.005 ppm	C 0.02 ppm	
Methylene bis (4-cyclohexylisocyanate)	0.005 ppm	C 0.02 ppm	
[5124-30-1]			
Lead [7439-92-1] elemental lead, inorganic and organic compounds of lead, as Pb			
Elemental lead, inorganic and organic compounds of lead, as Pb except tetraethyl lead [78-00-2]	0.05 mg/m ³		Skin (organic compounds)
Tetraethyl lead, as Pb [78-00-2]	0.10 mg/m ³	0.30 mg/m ³	
Mercury [7439-97-6], elemental mercury, inorganic and organic compounds of mercury, as Hg			
All forms of except alkyl, as Hg	0.025 mg/m ³		Skin
Alkyl compounds of, as Hg	0.01 mg/m ³	0.03 mg/m ³	Skin
Silica, Crystalline			
Quartz/Tripoli [14808-60-7; 1317-95-9]	0.10 mg/m ³ (R)		
Cristobalite [14464-46-1]	0.05 mg/m ³ (R)		
Vinyl chloride [75-01-04]	1 ppm		

Endnotes and Abbreviations:

¹ Means the benzene soluble fraction of total particulate matter of the substances emitted into the atmosphere from metallurgical coke ovens including condensed vapours and solid particulates.

[CAS No.] - CAS Registry Number.

f/cc - Fibres per cubic centimetre of air.

mg/m³ - Milligrams of the agent per cubic metre of air.

ppm - Parts of the agent per million parts of air by volume.

Skin - Danger of cutaneous absorption.

(R) Respirable fraction: means that size fraction of the airborne particulate deposited in the gas-exchange region of the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 4 µm at 50 per cent collection efficiency.

(a) Asbestos fibres longer than 5 µm in length and less than 3 µm in width and that have a length to width ratio not less than 3:1 as viewed in a phase contrast optical microscope at 400-450 times magnification.

Schedule 3: Designated Substances at Trent University: Current as of February 2022 and to be reviewed regularly.

Acrylonitrile

Asbestos

Arsenic

Benzene

Isocyanates

Lead

Mercury

Silica