

Lead Solder

SUBSTANCE:

RMM #500

Designated Substances Control Program

Final

Date: July / 03 Page: A-1

Appendix A Designated Substance Assessment Form

RECORD OF DESIGNATED SUBSTANCE ASSESSMENT

DATE:	January 16, 2008
COMPANY:	McMaster University, Department of Civil Engineering
DEPARTMEN	NT OPERATIONS:
	used in room ADL/108 for general maintenance and fabrication of electronic and strain gauge installation.
LOCATIONS:	
ADL 108	
ASSESSMENT	Γ PREPARED BY:
David Perrett,	Department of Civil Engineering, ADL, Ext22031
TITLE: Tech	nician
DATE PREPA	ARED: January 16, 2008

<u>APPLICATION – WORKSHEET 1: IS THE DESIGNATED SUBSTANCE PRESENT?</u>

1. I	1. Do any material safety data sheets from your suppliers indicate the presence of the substance?				
	YES	X	NO		
	2. If substance is present, indicate the department where it is used, nature of the use (i.e. Direct or Indirect), and the quantity used per month or year:				
Pr	oduct Name	Department	How Used? Direct / Indirect	Quantity Per Month / year	
Lead S	folder	Civil Engineering	Direct use during soldering operation	900 grams per year	
CONCLUSIONS					
Read statements and check applicable box:					
Substance not present anywhere in the workplace; regulation does not apply No Assessment needed					
Х	Processes / activities have been identified where substance present. Proceed to worksheet 2				

<u>APPLICATION – WORKSHEET 2: IS WORKER EXPOSURE LIKELY?</u>

1.	In what form does the substance enter the plant?
	Product Title: Kester 44 Rosin Core Solder
	Type of Container: Spool Size of Container: 1 lb. Spool
2.	Is this form altered during use or in the operation: YES x NO
	If YES, indicate the altered form: Solder is melted for soldering operation
3.	Is there a possibility of the substance being released into the workplace environment during normal use? YES $\begin{bmatrix} x \end{bmatrix}$ NO
	If YES, indicate the stage of the operation or areas where this can occur.
	Hand contact with solder could lead to subsequent ingestion
	Inhalation of solder vapour
4.	If YES to Question 3, specify the job functions and approximate number of employees who might be exposed:
	Job Function Number of Employees
	Maintenance and fabrication 1
	Strain Gauge installation
5.	If YES to Question 3, indicate how workers could be exposed: Inhalation x Ingestion x Skin Absorption Skin Contact x
6.	If NO to Question 3, is there a likelihood of escape due to leaks, accidents, etc.? YES NO
7.	Are workers likely to be exposed? YES \boxed{x} NO $\boxed{}$
	CONCLUSIONS
Are t	here any activities / situations where exposure by any route is likely? YES x NO
If NO	o, no further action is necessary. Date completed:
If YE	S, an assessment is necessary – proceed to Section III.
or de	If protection against exposure has been left up to some engineering control measure which can fail teriorate for any reason, or to a work hygiene practice, an assessment is necessary – Proceed to on III .

ASSESSMENT – WORKSHEET 3: PROCESS DESCRIPTION

NAME OF PROCESS: Soldering

	Process Flow	Description	Likely Exposure Yes / No
1.	Turn on fume extractor(absorber) and soldering iron	Extractor used to remove soldering fumes(see pg A-5)	No, if fume extractor is used
2.	Perform soldering	Solder used for assembly, disassembly of components	"
	↓		
3.	Turn off fume extractor and soldering iron		No
4.	Wash hands	Use sink in ADL/101,104 or105	No, if hands are washed after soldering
5.			

ASSESSMENT – WORKSHEET 4: EXISTING CONTROLS

Process Flow Stage	Control Description	Problems / Recommendations
	Engineering Controls:	
1	Weller Fume Absorber Model WSA350	Fume absorber not turned on.
	Work Practices:	
4	Wash Hands	Hands not washed . Place note on soldering station reminding user to use the absorber and to wash hands when finished soldering.

ASSESSMENT – WORKSHEET 5: EXISTING CONTROLS (cont.)

Process Flow Stage	Control Description	Problems / Recommendations
4	Hygiene Facilities and Practices: Wash hands after soldering. Washroom in room 101 or 104	N/A
2	Training / Information: MSDS for solder and this assessment should be reviewed.	N/A
	Emergency Procedures / Equipment: N/A	
	Personal Protective Equipment: Wear Safety Glasses to protect against solder splash.	

ASSESSMENT – WORKSHEET 6: JOB EXPOSURE ANALYSIS

Process Flow Stage	Job Title	Total Number of Employees	Tasks where Exposure Likely	Duration Hrs per Week	PPE Req'd to be Used
1	Technician	1	Soldering	2	Turn on fume
					extractor
					& use
					safety
					glasses
	Grad student	1	Inhalation possible		Wash hands afterwards
	CONCLUSIONS				
Jobs / task	s to be noted durin	ng walk-through	survey:		

Availability of fume extractor		

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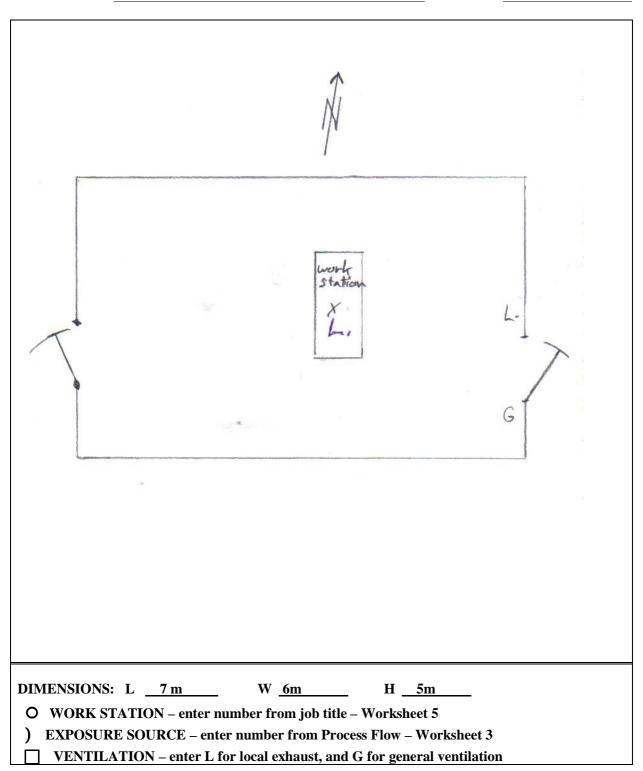
Appendix A

<u>APPLICATION – WORKSHEET 6: HEALTH EFFECTS</u>

1. Any reported health effects? If so, describe.		
Molten lead produces fumes or vapors that may be toxic and/or respiratory irritants.		
2. Any current Medical Program? If so, describe.		
N/A		
3. Previous exposure monitoring results? If so, describe.		
N/A		
CONCLUSIONS		
Health effects known at this stage: YES NO x		
Further information required: YES NO X		

<u>APPLICATION – WORKSHEET 7: FLOOR PLAN</u>

LOCATION: JHE 113A DATE: Jan 16, 2008



<u>APPLICATION – WORKSHEET 8: WALK THROUGH</u>

Evidence of Contamination:
N .
None
Hygiene Facilities and Work Practices:
Sink available in washrooms 101 or 104.
Safety glasses provided.
Note placed on soldering station: Use Fume Extractor and wash hands after soldering.
Ventilation Systems:
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General Room ventilation vents and Fume Extractor.
Storage Facilities:
NT/A
N/A

<u>APPLICATION – WORKSHEET 8: WALK THROUGH (cont.)</u>

Dispensing Procedures:
Lead Solder Dispensed from spool
· · ·
Housekeeping:
NT/A
N/A
Personal Protective Equipment:
Sofato Classes
Safety Glasses Fume Extractor
Tunic Extractor
Emergency Facilities / Procedures:
If lead is inserted, deigh long, accepting of section and lead to the
If lead is ingested, drink large quantities of water, and call a physician

<u>APPLICATION – WORKSHEET 9: WALK THROUGH CONCLUSIONS</u>

1(a).	Were any areas found where controls are required or where existing controls may require improvement? YES $\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$
1(b).	If YES, indicate the areas where the controls may be required or where existing controls may require improvement.
	AREA SUGGESTED IMPROVEMENTS
	<u></u>
2(a).	Personal exposure monitoring is required. YES NO x
2(b).	If YES, indicate where:
3.	Indicate any workers for whom medical testing and / or examinations may be required.
	N/A

<u>APPLICATION – WORKSHEET 6: HEALTH EFFECTS</u>

x CONCLUSION A: NO WORKER'S HEALTH MAY BE AFFECTED		
CONCLUSION B: A WORKER'S HEALTH MAY BE AFFECTED.		
OVERALL CONCLUSION		
A control program is necessary. YES NO x		
Improvements needed in existing program:		
DATE .	Jan 16, 2008	SIGNED
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