**Handouts:** Apprenticeship Completion (2 pages) Skill Builders: Key Words & Phrases, Flowcharts

IN THE WORKPLACE: Apprenticeship completion is a serious issue. While the experience of every apprentice is unique, recognizing frequently cited barriers to completion and preparing for how to address them if they arise, is a key to attaining certification.

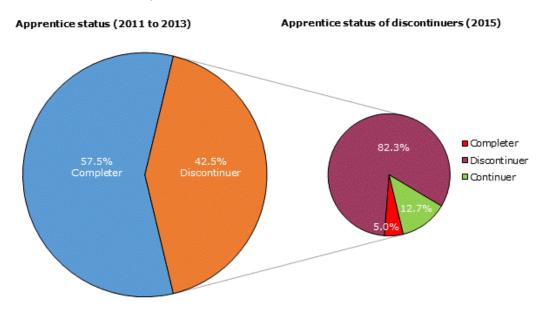
Refer to the **Apprenticeship Status** chart and graph to locate the answers to the following questions.

1.	If the total number of survey respondents was 28,469, how many people discontinued their program during 2011- 2013?
2.	What percentage of those apprentices who discontinued their program went on to complete in 2015? How many people is that?
3.	What period of time has elapsed between the two pie charts?
4.	What data is shown on each of the X and Y axes in the bar chart?
5.	The values in the bar chart do not add up to 100 percent. What is the approximate percentage of missing values in the bar graph? Why are the missing values excluded from the bar graph?
6.	Redraw the bar graph as a pie chart. Represent all reasons of more than 5% by their own section Represent all other reasons including any missing values as a single section labelled "other" Label the chart section including text and percentages. Use whole numbers for all values.



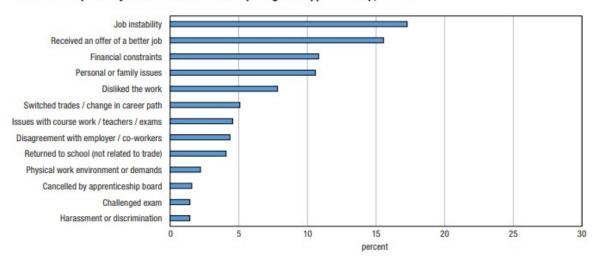
# **Apprenticeship Status**

# Apprentice status (2011 to 2013) and apprentice status of discontinuers in 2015, Canada



Source: Statistics Canada, National Apprenticeship Survey (NAS), 2015.

#### Main reason reported by discontinuers for not completing their apprenticeship, Canada



Frank, K. & Jovic, E. (2015). Apprenticeship status 2011-2013 [Image]. In National apprenticeship survey 2015. (p. 14). Ottawa, ON: Statistics Canada

Frank, K. & Jovic, E. (2015). Main reason reported by discontinuers [Image]. In National apprenticeship survey 2015. (p. 24). Ottawa, ON: Statistics Canada



**HANDOUT**: Flowchart: Backhoe Operation (2 pages) Skill Builder: Flowcharts

IN THE WORKPLACE: A common use for flowcharts is to display processes at a glance and identify steps in those processes where decisions may be required.

Use the information on backhoe operation to create a flowchart about starting a backhoe. Use the symbols on the next page to help you.

- Make sure the chart is logical and that you can explain why you ordered the steps as you did.
- You must include at least 3 decision points showing YES and NO options
- The flowchart must have a start and a finish
- Use the appropriate shapes for each step in the flowchart
- Label the flowchart

**Backhoe Operation**: Backhoes are designed to do one thing: dig. But that does not mean that anyone can just jump in and safely start digging. There are a number of steps that need to be completed to ensure safe operation. Many of the steps are related to the condition of the machine itself. Others have to do with ensuring that the controls are set to the appropriate task.

- 1. Walk around backhoe and check for damaged or worn parts. Replace as needed.
- Check all fluids (fuel, oil, hydraulic fluid, DEF, and coolant/anti-freeze). Top up as needed
- 3. Ensure the boom is locked and swing lock is in place before driving the machine
- 4. Get in.
- 5. Confirm correct digging control pattern is selected: backhoe or excavator digging. Adjust controls to suit task if required.
- 6. Crank engine and allow to warm up.
- 7. Engage controls.
- 8. Honk the horn prior to moving the machine to alert those nearby and then move to dig site.
- Engage the stabilizers to prevent the machine from rocking or tipping. If unable to stabilize adjust location.
- 10. Reengage stabilizers.
- 11. Dig



# Common flowchart symbols:

Symbol	Name	What it means
	Start/Stop	A circle, oval or rounded rectangle starts or ends the process.
	Step/Task	A rectangle means a step in the process or a task. Slanted rectangles usually mean sub-steps or sub- processes.
<b>→</b> ←	Process Direction	Arrows and lines indicate the order of the steps.
	Decision Point	A diamond shape means that you need to make a choice or decision.



# **HANDOUTS**: Hazard Assessment (2 pages) Skill Builders: Key Words & Phrases, Entry Forms

IN THE WORKPLACE: Assessing and reporting on hazards is a common task across trades. The ability to do so accurately is important as the reports impact the future safety of workers. Workers complete assessments prior to the start of each new task or when conditions have changed. Always check your work area for hazards prior to starting work as and check the condition of all tools and equipment.

Read the **Hazard Assessment Form** to complete the tasks and locate answers to the questions. Write the answers in the space provided and complete the form as requested.

1.	What o	late format is required?
2.	Who sł	nould the completed form be given to?
3.	For eac	ch identified hazard, identify an appropriate control from the options.
	a)	Confined space:
	b)	Animal droppings:
	c)	Unsafe equipment:
	d)	Sharp objects:

4. Complete the assessment form to identify any hazards in the room you are currently working in (or an outside space or class shop if available). Work with a partner or in a small group. Compare your results with another team who assessed the same space.



	HAZARD AS	SES	SMENT	FORM		
hazards are controlled	This purpose of this assessment is to identify hazards associated with your work tasks, and to ensure hazards are controlled prior to starting work. Provide completed copies of this form to your supervisor.					
WORK LOCATION:	the Occupational Healt	n and	Work Cre			
WORK LOCATION.			WOIK CIE	·VV.		
		-				
DESCRIPTION OF J	OB or TASK:					
SUPERVISOR IN C	HARGE:		ASSESS	MENT DATE (D/M/Y)	):	
POTENTIAL HAZA	RDS (Check all that a	pply a	nd add othe	ers as required)		
☐ Confined Space	Extreme heat / cold	$\square_{M}$	ould	Obstructions	☐ Fall h	azards
☐ Working Alone	□ Noise	□EI	ectrical	☐ Slip/Trip Hazards	☐ Unsat	fe tools
Awkward postures or lifting	Asbestos	Lig	ghting	☐ Mechanical	Unsat equip	
Hazardous gases/chemicals	☐ Sharp objects		nimal oppings	☐ Entrapment		
OTHER HAZARDS	OR INFORMATIO	N:				
REQUIRED HAZAI available space).	RD CONTROLS (Ch	ieck al	l that apply	and add additional cont	rols in the	
Lockout tag out proced	ure		Mechar	nical ventilation		
Hard hat			Ladders	s for safe access and eg	ress	
Protective gloves			Mechar	nical aids (dolly etc.)		
Respirator			Atmosp	heric testing		
Eye protection			Emerge	ency or rescue procedure	)	
Protective footwear						
Hearing protection			Work P	ermit		
Coveralls			Addition	nal training		
Pedestrian Barricades			Machine	e guarding		
Stand by worker						
Confined Space Entry Procedures						
Additional Lighting (e.g	. Flashlight)		Fall pro	tection		
Communication device			Other			
Additional Controls	or Comments (Use ba	ack of	page if ne	ecessary):		



**HANDOUT**: Incident Report (4 pages)
Skill Builders: Key Words & Phrases, Entry Forms

IN THE WORKPLACE: Workers use incident reports to document the exact details of an unusual event that occurred at work, such as an injury to a worker or customer. Accuracy is important as the report may form part of a legal proceeding.

The article, **Site supervisor fined following workplace incident at gravel crushing pit,** describes a real workplace incident in Saskatchewan.

Use the information in the article to complete the **Incident Report** as if you had observed the accident. Complete as much of the report as you can.

Use point form to complete the following sections:

- Basic description of the occurrence
- Causes that led to the incident
- Actions taken to prevent recurrence (NOTE: this information is not explicitly provided in the article so use your best judgement and experience)



# INCIDENT REPORT

	GENERAL INFOR	MATION		
Name of Person Completing Report:				
Name of Injured or Affected Person:			]	☐ Employee ☐Custome
Incident Date: Time of Oc	currence:	Facility:	•	
Department:		Location (s	specific):	
	INCIDENT TY	PE		
Slip/Trip/Fall	Cut			Damage
Personal Illness	Struck by		Property	
Ergonomic [	Caught in		☐ Fire / Fig	ood Hazardous Spill / Leak
Inappropriate Conduct	Chemical Exposure		☐ Other:	
☐ Violence / Threat / Harassment ☐	Biohazard Exposure		10 50	
OTHER PERS	SONNEL INVOLVE	ED AND V	VITNESSE	3
Name		De	partment	Phone / Contact
1				
2				
3				
		1		
BASIC I	DESCRIPTION OF	OCCURF	RENCE	
BASIC	DESCRIPTION OF	OCCURE		Attached Decimostation
BASIC	DESCRIPTION OF	OCCURE		e Attached Documentation
			Se	e Attached Documentation
	T AID / MEDICAL		□ Se	
FIRS	T AID / MEDICAL Ambula	RESPON	□ Se	□No
FIRS First Aid Provided: □ Yes □ No	ST AID / MEDICAL Ambula	RESPON ance Involve	Se	□No
FIRS First Aid Provided: ☐ Yes ☐ No First Aider: ☐ Emergency First Aider ☐ Standard Fi	ST AID / MEDICAL Ambula	RESPON ance Involve Hospital:	Se	□No
FIRS First Aid Provided: □ Yes □ No First Aider: □ Emergency First Aider □ Standard Fi	ST AID / MEDICAL Ambula Sent to	RESPON ance Involve Hospital:	Se	□No



upervisor / Director / Dean N/A uman Resources N/A /orkers' Compensation Board plice  REPORT COMPLETED BY  Name Position Date Time	CAU	ISES THAT LED TO THE INC	CIDENT	
REPORTED TO   Name				
REPORTED TO   Name				
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Authority Name Date Case / Ref upervisor / Director / Dean N/A uman Resources N/A /orkers' Compensation Board police  REPORT COMPLETED BY Name Position Date Time  IGNATURE:  SENIOR MANAGEMENT REVIEW Name Position Date	ACTION	S TAKEN TO PREVENT REC	URRENCE	
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Name Position Date Time  IGNATURE:  SENIOR MANAGEMENT REVIEW  Name Position Date	Supervisor / Director / Dean Human Resources Workers' Compensation Board		Date	N/A
SENIOR MANAGEMENT REVIEW  Name Position Date	Supervisor / Director / Dean Human Resources Workers' Compensation Board	Name		N/A
SENIOR MANAGEMENT REVIEW  Name Position Date	Supervisor / Director / Dean Human Resources Workers' Compensation Board Police	Name REPORT COMPLETED BY	(	N/A N/A
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Name Position Date	Supervisor / Director / Dean  Human Resources  Workers' Compensation Board  Police  Name	Name REPORT COMPLETED BY	(	N/A N/A
	Supervisor / Director / Dean Human Resources Workers' Compensation Board Police  Name  SIGNATURE:	Name  REPORT COMPLETED BY  Position	/ Date	N/A N/A
GNATURE:	Supervisor / Director / Dean Human Resources Workers' Compensation Board Police  Name  SIGNATURE:	Name  REPORT COMPLETED BY Position  BENIOR MANAGEMENT REV	/ Date	N/A N/A
GNATURE:	Supervisor / Director / Dean Human Resources Workers' Compensation Board Police  Name  SIGNATURE:	Name  REPORT COMPLETED BY Position  BENIOR MANAGEMENT REV	/ Date	N/A N/A
	Supervisor / Director / Dean Human Resources Workers' Compensation Board Police  Name  SIGNATURE:  S Name	Name  REPORT COMPLETED BY Position  BENIOR MANAGEMENT REV	/ Date	N/A N/A

Bow Valley College. (2020). Incident Report. [Entry Form]. Calgary, Canada: Author



# Site supervisor fined following workplace incident at gravel crushing pit.

Failure to follow safety protocols at a gravel crushing pit near Wakaw led to serious injuries for one man last year, and now, fines against the supervisor on shift at the time.

Bradley Davidson was fined a total of \$4,900 in Prince Albert Provincial Court Friday in connection with the workplace incident, which happened June 2, 2017. Davidson, 28, pleaded guilty to one violation under the province's Occupational Health and Safety Act.

Davidson was employed for nine years with the same company at the time of the incident, and was supervising operations at the site, located about seven kilometres outside Wakaw. The company was not charged in connection with the incident.

At the time of the accident, a worker on the gravel crushing crew was working at the site feeding gravel into the conveyor with a loader, when the machine was switched off and he was ordered to clear debris. While still up in the air on the conveyor, Davidson started up the machine, failing to do a visual check and ensure the man had safely cleared the area.

Unable to get anyone's attention once the machine started up and knowing that he was going to be pushed through the conveyor, the man decided to go feet first, but caught his arm on a roller, breaking it, before continuing to travel through the machine. The momentum of the conveyor continued to push him through three more levels of the conveyor before he fell some 12 feet to the ground.

Along with a broken arm, the man suffered a split pelvis, deflated lung, a C-1 spinal fracture and broken ribs. He spent 17 days in hospital following the incident and seven months off work.

Miraculously, he was able to return to work, and his lawyer said he continues to be good friends with Davidson despite the workplace incident. The lawyer also said workplace incidents are taken seriously, and asked for a fine totaling \$10,500 in court last week, and that "This is a situation where Mr. Davidson simply didn't follow the procedures that he was supposed to follow, that he was trained to follow," she added.

Court heard Friday that Davidson no longer works for the company.

Tebbutt, C. (Sept. 20, 2018). Site supervisor fined following workplace incident at gravel crushing pit. paNOW. <a href="https://panow.com/2018/09/10/site-supervisor-fined-following-workplace-incident-at-gravel-crushing-pit/">https://panow.com/2018/09/10/site-supervisor-fined-following-workplace-incident-at-gravel-crushing-pit/</a>



**HANDOUTS**: Invoice 3 (3 pages) Skill Builders: Entry Forms, Tables

IN THE WORKPLACE: Accurately entering and verifying information in complex forms such as invoices and work orders is a common task across trades. Errors in costs, hours worked, and materials to be delivered can result in significant losses to the company in time and hours worked.

Read the **RyCan Contractors Invoice** to complete the tasks and locate answers to the questions. Write the answers in the space provided or highlight the information on the invoice.

1.	What is the invoice number?
2.	When was the invoice issued?
3.	What is the last date payment should be made?
4.	What 3 ways can payment be made?
5.	If paying by cheque, what name should the cheque be issued to?
6.	What is the full name of the person who placed the order?
7.	What is the product number?



8.	What is the % of tax being charged?
9.	If the apprentice's time is billed out at \$25 an hour, how much of the total labour charge is for the journeyperson's time?
10.	The company offers a discount to educational institutions on invoices over \$8,000 before tax. Is the university eligible for the discount? How do you know?



# RyCan Contractors

**INVOICE** 

INVOICE # 9-23 DATE: OCT/23/2018

123 Market Street Kamloops, BC V1S 1A4 Phone: 898-123-1234

TO: SHIP TO:

Chris Adam
Thompson College
805 TC Drive
Kamloops BC V2C 028

Kamloops, BC, V2C 028 Phone: 250-555-5555

### **COMMENTS OR SPECIAL INSTRUCTIONS:**

Removal of existing toilets and replacement with low-flo high-efficiency models.

SALESPERSON	P.O. NUMBER	REQUISITIONER	SHIPPED VIA	TERMS
J.B. Bowen	Same as invoice #	C. Adam	NA	30 days from invoice date

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL
7	Afwell millennial commercial toilets #3127X3 (white)	763.00	5,341.00
7	Replacement batteries	27.00	189.00
7	Recycling/disposal fees	60.00	420.00
8	Labour: Journeyperson + apprentice (8 hours)	165.00	1,320.00
		SUBTOTAL	7270.00
		SALES TAX	945.10
	SHIPPIN	IG & HANDLING	NA
		TOTAL DUF	8.215.10

Same as ordered.

Payment may be made by credit card, billed to account, or by cheque. Make all cheques payable to RCP Contractors.

If you have any questions concerning this invoice, please contact us.

# **THANK YOU for your business!**

Bow Valley College. (2020). RyCan Contractors Invoice. [Invoice]. Calgary, Canada: Author



**HANDOUTS**: Line Drawings (2 pages) Skill Builders: Technical Drawings

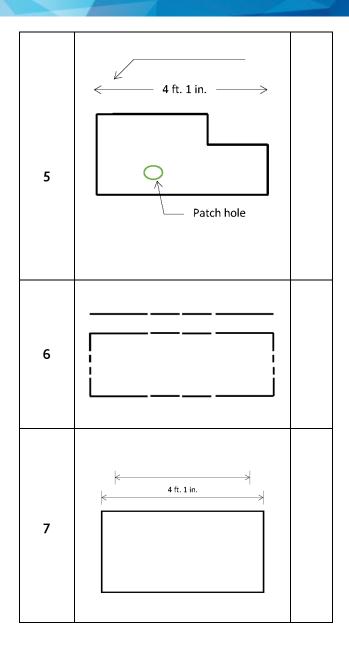
IN THE WORKPLACE: Contractors, estimators, builders and tradespersons all rely on technical drawings for the information they need to safely and accurately build and repair large and small construction.

1. Match the numbered images on the left with the correct definition on the right.

Line #	Example	Def.
1		
2		
3		
4	<	

Def.	Definition
Α	Centre Line: Long and short dash lines. Usually indicates centre of holes, circles and arcs. Line is thin and dark.
В	Dimension Line: Thin and dark lines use to show the size (span) of an object with a numeric value. Usually terminates with arrowheads or tick markings. Often shown with a break in the middle where the measurement will be noted.
С	Hidden line: Short dashed lines use to show nonvisible surfaces. Usually shows as medium thickness.
D	Property Line: Long dashes alternating with two short dashes. This line is used to show the actual legal line of the property.
E	Leader Line: Medium line with arrowhead to show notes or to label for size or special information about a feature.
F	Extension Line: Thin and dark line used to show the start and end of a dimension. The extension line does not touch the object and it ends just past the head of the arrow.
G	Object or Visible line: Thick dark line use to show outline of an object, visible edges and surfaces.





2. Locate a complex line drawing in your technical training materials and identify as many of the line types as you can. If there are differences in how the lines are used, what do you think the reason for that is?

Bow Valley College. (2020). Line Drawings and Definitions Tables. [Illustrations]. Calgary, Canada: Author



HANDOUT: Log Book: HEO (3 pages)

Skill Builder: Entry Forms

IN THE WORKPLACE: Accurately entering and verifying information in complex forms such as log books, invoices and work orders is a common task across trades. Tracking time has direct connection to a range of tasks including machinery use related to certification requirements and to monitoring project costs. Accuracy is important when using log books as they are considered to be legal documents.

Refer to the Log Book Index to complete the tasks and locate answers to the questions. Write the answers in the spaces provided or highlight the information in the log book.

1.	Under the subheading "From" in what order should the date information be entered?
2.	In what month was the excavator entry completed?

Use the following information to answer the next questions:

- "Period of Operation" refers to the total number of days, full weeks and full months the activity occurred in.
- 3. The period of operation for the backhoe was incorrectly recorded and actually ended on June 11, 2015. Correct the entry using the boxes provided below.

	Type of Machine	Dat	Date			te		Period of Operation				
Page	Model and Size	Fro	From		То			days/weeks/months				

4.	Enter the correct number of months to complete entry 5.
5.	Complete the "To" line for entry 6.



6.	On which machine did the operator complete the greatest number of days?

- 7. On which machine did the operator complete the fewest number of days?
- 8. Add a 7<sup>th</sup> entry using the following information:
  - a. Same equipment as first entry
  - b. Started work 14 days after entry 6 was completed
  - c. Worked 6 months and 3 days



# Operators Log Book Index

	Type of Machine	Dat	:e		Dat	:e		Period of Operation					
Page	Model and Size	Fro	From					days/	weeks/m	onths			
1	Excavator, Hítachí	26	04	14	14	09	14	5	2	4			
2	Backhoe, Caterpíllar	15	09	14	06	11	15	1	3	13			
3	Loader, John Deere	15	11	15	30	03	16	1	2	4			
4	Grader, Caterpíllar	10	04	16	18	11	16	1	1	7			
5	Dozer, Hítachí	20	11	16	23	04	17	3	0				
6	Wheel skídder, Hítachí	07	05	17	01	08		4	3	14			
7													
8													
9													
10													
11													
12													

Bow Valley College. (2020). Operators Log Book Index. [Table]. Calgary, Canada: Author



**HANDOUT**: Maintenance Schedule: Sprinkler (3 pages) Skill Builder: Entry Forms, Tables & Lists

IN THE WORKPLACE: Scheduling maintenance means that machinery is less likely to break down. Following and accurately verifying information in workplace forms such as maintenance schedules is a common task across trades. For example, to make sure that sprinkler systems are reliable, plumbers must perform periodic inspection and maintenance of all system components.

Read the **Sprinkler Maintenance Schedule** to complete the tasks and locate answers to the questions. Write the answers in the space provided or highlight the information in the form.

1.	Which tasks need to be performed 4 times a year?
2.	How often should dry trip tests be performed?
3.	How often should wet trip tests be performed?
4.	What sprinkler tests relate to water flow?
5.	How often should alarms be inspected?
6.	What types of valves need to be inspected?



# **MAINTENANCE SCHEDULE: SPRINKLER - ACTIVITY**

- 7. Assuming the year starts January 1, complete the calendar to show when the following tasks need to be performed during February. Enter the corresponding letter (A, B, etc.) on the day you would schedule the maintenance
  - A. Check water level in tanks
  - B. Start fire pumps
  - C. Check air pressure
  - D. Inspect and test controllers
  - E. Inspect valves for open position.

# **February**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28		

8.	Assuming the March?	year starts	January 1,	what	additional	tasks	would	have to	be com	pleted in



Summary of Inspection and Test Frequencies for Sprinkler Systems.

	Weekly	Monthly	Quarterly	Annually	Every 3
Check general condition of sprinklers and sprinkler system				X	
Conduct flow tests of open sprinklers				X	
Conduct main drain tests			X		
Test water flow alarms		X			
Check air and water pressure in dry pipe systems	X				
Trip test dry pipe valves				X	e e
Drain low points in dry pipe systems				X	
Trip test deluge and pre-action systems		<i>0.</i>		X	X <sup>1</sup>
Trip test high-speed suppression systems					X
Check general condition of standpipe systems			X		
Perform water flow tests				X	
Check general condition of hydrants				X	
Check general condition of fire department connections				X	
Check water levels in tanks	X				
Check general condition of water storage tanks		0.		X	
Check water level and air pressure in pressure tanks	X				
Check general condition of pressure tanks				X	
Check tank heating systems				X	
Inspect and test cathodic protection equipment				X	
Start fire pumps	X				
Check fuel supply to engine drivers	X				
Perform fire pump flow tests				X	
Inspect and test controllers				X	
Inspect valves for open position		X			
Conduct general preventive maintenance inspection of valves				X	8
Inspect check valves, water flow meters, and backflow preventers					X <sup>1</sup>
Test pressure regulating and altitude valves				X	
1				200	

Bow Valley College. (2020). Sprinkler Maintenance Schedule. [Entry Form]. Calgary, Canada: Author



**HANDOUTS**: Mileage Log (2 pages) Skill Builder: Entry Forms, Tables & Lists

IN THE WORKPLACE: Accurately calculating information in complex forms such as mileage logs and invoices is a common task across trades. Basic math errors can result in you being under or overpaid, or a client's bill not being accurate.

Use the **Mileage Form** to complete the following tasks.

- 1. Use the following information to complete as much of the form as you can:
  - a. Rate per km .56
  - b. Employee ID # 0015822
  - c. Driving period was 1 week (7 days)
  - d. Log was authorized 2 days after the last entry was made
  - e. Distance from office to warehouse = 12 km
  - f. Distance from warehouse to Site A = 22 km
  - g. Distance from office to Site B = 17 km
- 2. Calculate the total mileage and total reimbursement. Need help? Use your phone or a calculator.



Mileage	Log						
Employee na	me Alex Wu		Rate per km			Do not write h	ere:
ID			For period	13/09/19			
Authorized by	/ LG		Total mileage				
Authorized or	1		Total reimbursement	\$			
		•	•				
Date	Starting Location		Destination	Odometer start	Odometer end	Mileage	Reimbursement
13/09/19	09/19 <b>Office</b>		В	23111			
15/09/19	Warehouse	Site	te A (return trip) 2320				
17/09/19	Office	Wai	rehouse	23209			
18/09/19	Site A			23241	23263		
19/09/19	Site B Off		ce	23277			

Bow Valley College. (2020). Mileage Log. [Entry Form]. Calgary, Canada: Author



Handouts: Project Schedule (2 pages) Skill Builder: Key Words & Phrases, Charts & Graphs

IN THE WORKPLACE: Staying on schedule is critical to staying on budget and having the required resources (human and material) available when needed. A shared project schedule helps plan for potential problems and ensures neither time nor money are wasted.

Refer to the **Schedule: Solar Panel Installation** to locate the answers to the following questions.

1.	What is the project completion date?
2.	Who is responsible for the wiring and how many days will they need?
3.	Who is responsible for the greatest number of project days? How many?
4.	What tasks must be completed before the materials are purchased?
5.	If the inspection is moved up a week, what task(s) definitely need to be rescheduled? What additional task(s) may need to be rescheduled?
6.	How many work days can the procurement of the PV modules be delayed without impacting the schedule?



# **Schedule: Solar Panel Installation**

Task	Who		June 3					June 1	0			J	une 1	7	June 24						
		М	Т	w	Т	F	М	Т	w	Т	F	М	Т	w	Т	F	М	Т	w	Т	F
Design and engineer	JK																				
Obtain permits	RT																				
Procure materials	RT																				
Install roof attachments	WM																				
Assemble racking	WM																				
Install PV modules	WM																				
Install DC wiring	SR																				
Install AC system	WM																				
Inspection	JK																				$\Box$
Run Test	JK/WM																				

Note: Project dates refer to the first workday of that week.

Bow Valley College. (2020). Schedule: Solar Panel Installation. [Gantt chart]. Calgary, Canada: Author



**HANDOUTS**: Product Recall: Chainsaw (4 pages)
Skill Builders: Key Words & Phrases, Scanning, Tables & Lists

IN THE WORKPLACE: Health Canada issues product alerts and recalls that are designed to keep consumers and workers safe. "Safety alerts" are issued as suggestions, but if a product is recalled it is always considered a danger to human health or safety. This means it could cause injury, death or adverse health effects as a result of its normal use. The Health Canada website has a special section dedicated to the recall of Tools and Electrical Products.

Read the **Product Recall Alert** to locate the following information. Highlight the information in the document or write your answers in the space provided.

1.	When was the recall issued?
2.	How many Makita DCS products are included in the recall?
3.	How many of the affected units were sold in Canada?
4.	Is a Dolmar PS7900 purchased in January 2002 affected?
5.	What is another word for laceration?
6.	What are the 3 classes of chainsaw included in the recall?
7.	What is the hazard and the related danger in using the recalled chainsaws?



# PRODUCT RECALL: CHAINSAW – ACTIVITY

8.	What should a person who owns a chainsaw in the list do?		
9.	Can the chainsaws be repair	red? At what cost?	
10.	What company manufacture	ers the chainsaws?	
11.	. The information in a product recall alert is divided into 3 sections. What would you title each section?		
		age of the Government of Canada website. Go to the "Tools and and select a product under current or past recall. Scan the alert to complete the table below.	
	Date of alert		
	Affected products		
	Model number		
	Identified hazard		
	Name of manufacturer		
	Instructions to consumer		



# Makita Canada Inc. recalls Makita and Dolmar Chainsaws

Starting date: July 19, 2018
Posting date: July 19, 2018

**Type of communication:**Subcategory:

Consumer Product Recall
Tools and Electrical Products

Source of recall:
Issue:
Laceration Hazard
Audience:
General Public
Identification number:
RA-67192

# Affected products

### Makita and Dolmar 64, 73 and 79 cc Gas Powered Chainsaws

### **Product description**

This recall involves Makita and Dolmar brand chainsaws in the 64, 73 and 79 cc classes. These chainsaws were sold with and without chainsaw bars and chains. The motor housing/fuel tank are either red/orange or teal blue in colour.

The model number and date of manufacture are located on the label at the back of the saw near the handle. The table below provides the model number and date of manufacture of the affected chainsaws.

### The following products are included in this recall.

Class	Brand	Model Number	Date of Manufacture
	Makita	DCS6401-PH	
64cc	IVIAKILA	DCS6421-20	Before June 1, 2018
	Dolmar	PS6400	
		DCS7301-PH	
	Makita	EA7300P50E	
73cc		EA7300P50E	Before June 1, 2018
	Dolmar	PS7300	
		PS7310	
	Makita	DCS7901-PH	
79cc	Dolmar	PS7900	Before June 1, 2018
	Dollilal	PS7910	















#### Hazard identified

The automatic chain brake does not easily engage when the saw kicks back, possibly exposing the user to contact with the chain while it is still moving, posing a laceration hazard.

As of July 4, 2018, the company has received no report of incident or injury in Canada.

#### Number sold

Approximately 2,503 units of the affected products were sold in Canada.

#### Time period sold

The affected products were sold in Canada from April 2002 to June 2018.

#### Place of origin

Manufactured in Germany

### Companies:

**Distributor**: Makita Canada Inc.

Whitby, Ontario CANADA

Manufacturer: Dolmar GMBH, Makita Engineering

Hamburg GERMANY

### What you should do

Consumers should immediately stop using the affected chainsaws, and take the saw to the nearest <u>Makita Canada Factory Service Centre</u> to have the saw examined and repaired free of charge.

For more information, consumers may contact the nearest <u>Makita Factory Service Centre</u>, by <u>email</u> or by visiting the company's <u>website</u>.

Please note that the Canada Consumer Product Safety Act prohibits recalled products from being redistributed, sold or even given away in Canada.

Health Canada would like to remind Canadians to report any health or safety incidents related to the use of this product or any other consumer product or cosmetic by filling out the <u>Consumer Product Incident Report Form.</u>

This recall is also posted on the <u>OECD Global Portal on Product Recalls website</u>. You can visit this site for more information on other international consumer product recalls.

**Date modified:** 2018-08-03

Health Canada. (July 19, 2018). Makita Canada Inc. recalls Makita and Dolmar chainsaws. https://healthycanadians.gc.ca/recall-alert-rappel-avis/hc-sc/2018/67192r-eng.php

Note: content has been edited for space. Do not assume all information is accurate.



# PRODUCT RECALL: DIGITAL CLAMP METERS-ACTIVITY

**HANDOUTS**: Product Recall: Digital Clamp Meters (4 pages) Skill Builders: Key Words & Phrases, Scanning, <u>Tables & Lists</u>

IN THE WORKPLACE: Health Canada issues product alerts and recalls that are designed to keep consumers and workers safe. "Safety alerts" are issued as suggestions, but if a product is recalled it is always considered a danger to human health or safety. This means it could cause injury, death or adverse health effects as a result of its normal use. The Health Canada website has a special section dedicated to the recall of Tools and Electrical Products.

Read the **Product Recall Alert** to locate the following information. Highlight the information in the document or write your answers in the space provided.

1.	When was the recall issued?
2.	How many meter types are included in the recall?
3.	How many of the affected units were sold in Canada?
4.	Is an EX655 purchased in April 2016 affected?
5.	What years were the recalled meters distributed?
6.	Which Exech meters are not included in the recall?
7.	What is the hazard and the related danger in using the recalled meters?



# PRODUCT RECALL: DIGITAL CLAMP METERS-ACTIVITY

8.	What should a consumer do	right away?			
9.	Can a consumer have the meters repaired?				
10.	. What company manufacturers the meters?				
11.	. The information in a product recall alert is divided into 3 sections. What would you title each section?				
12.	2. Google the product alert page of the Government of Canada website. Go to the "Tools and Electrical Products" section and select a product under current or past recall. Scan the alert for the required information to complete the table below.				
	Date of alert				
	Affected products				
	Model number				
	Identified hazard				
	Name of manufacturer				
	Instructions to consumer				



# **Extech recalls Digital Clamp Meters**

Starting date: May 25, 2017
Posting date: May 25, 2017

**Type of communication:**Subcategory:

Consumer Product Recall
Tools and Electrical Products

Source of recall: Health Canada Identification number: RA-67192

# Affected products

### Extech AC/DC Digital Clamp Meters

### **Product description**

This recall involves AC/DC digital clamp meters that are used to measure AC/DC voltage, resistance, capacitance, frequency, temperature, continuity, and diode.

### The following products are included in this recall.

Model number	Serial number	Date Code	UPC Code	Certification File Number
EX650	R15XXXXXXX	2015	793950396506	UL E201687
EX655	R15XXXXXXX	2015	793950396551	UL E201687
MA160	R17XXXXXXX	2016	793950316016	ETL 150112090GZU-001
MA61	R15XXXXXXX	2015-2016	793959370612	ETL 150609099GZU-001
MA63	R15XXXXXXX	2015-2016	793950370636	ETL 150609099GZU-001

The model number can be found on the front of the unit and the serial number is on the back. Serial numbers ending with an "A" are not included in the recall.





#### Hazard identified

The clamp meters terminal input screws can come loose which can fail to give accurate readings, causing the user to falsely believe that the electrical power of the test subject is low or off, posing an electrocution hazard.

As of May 17, 2017 the company has received no report of incidents in Canada and no reports of injury. In the United States, the company has received reports of the screw coming loose and no reports of injury.

#### **Number sold**

Approximately 21 units of the affected products were sold in Canada and 800 were sold in the United States.

#### Time period sold

The affected products were sold in Canada from January 2016 to April 2017.

#### Place of origin

Manufactured in China

#### Companies:

**Distributor**: Extech

Goleta, California UNITED STATES

Manufacturer: Uni-Trend Technology Limited

Guandong CANADA

# What you should do

#### Consumers should immediately stop using the meter and contact Extech for an exchange.

For more information, or to register for an exchange, consumers can contact Extech by phone at 111-111-1111, Monday to Friday 9:00 am to 5:00 pm EST, by email, or by visiting the company website and clicking on "Safety Notices" at the bottom of the page.

Please note that the Canada Consumer Product Safety Act prohibits recalled products from being redistributed, sold or even given away in Canada.

Health Canada would like to remind Canadians to report any health or safety incidents related to the use of this product or any other consumer product or cosmetic by filling out the <u>Consumer Product</u> Incident Report Form.

This recall is also posted on the <u>OECD Global Portal on Product Recalls website</u>. You can visit this site for more information on other international consumer product recalls.

**Date modified: 2017-05-25** 

Ref: Health Canada. (2017). Recalls and safety alerts: digital clamp meters.

https://healthycanadians.gc.ca/recall-alert-rappel-avis/hc-sc/2017/63356r-eng.php

Note: content has been edited for space. Do not assume all information is accurate.



# **HANDOUTS**: Product Recall: Torch Handles (4 pages) Skill Builders: Key Words & Phrases, Scanning, Tables & Lists

IN THE WORKPLACE: Health Canada issues product alerts and recalls that are designed to keep consumers and workers safe. "Safety alerts" are issued as suggestions, but if a product is recalled it is always considered a danger to human health or safety. This means it could cause injury, death or adverse health effects as a result of its normal use. The Health Canada website has a special section dedicated to the recall of Tools and Electrical Products.

Read the **Product Recall Alert** to locate the following information. Highlight the information in the document or write your answers in the space provided.

1.	When was the recall issued?
2.	What brand names was the product sold under?
3.	How many of the affected units were sold in Canada?
4.	Is a WELD-HDL 18-5 purchased in December 2014 affected?
5.	What does the model number prefix 440 indicate?
6.	Which Harris handles are not included in the recall?
7.	What is the hazard and the related danger in using the recalled product?



# PRODUCT RECALL: TORCH HANDLES – ACTIVITY

8.	What should a consumer do both right away and later?				
9.	What 2 ways is the product sold?				
10.	b. Where and by what company is the product?				
11.	. The information in a product recall alert is divided into 3 sections. What would you title each section?				
12.	12. Google the product alert page of the Government of Canada website. Go to the "Tools and Electrical Products" section and select a product under current or past recall. Scan the aler for the required information to complete the table below.				
	Date of alert				
	Affected products				
	Model number				
	Identified hazard				
	Name of manufacturer				
	Instructions to consumer				



# Harris Products Group recalls torch handles

Starting date: July 31, 2014
Posting date: July 31, 2014

**Type of communication:**Subcategory:

Consumer Product Recall
Tools and Electrical Products

Source of recall: Health Canada Issue: Fire Hazard Identification number: RA-40729

# Affected products

Torch handles used for welding, cutting, brazing, soldering and/or heating

### **Product description**

This recall involves two models of torch handles that were manufactured from December 1, 2013 through March 31, 2014 and sold under the Lincoln Electric Company and Harris Product Group names. The specific model of torch handles are:

- Model 18-5
- Model 85

All of the potentially affected torch handles are stamped with the model number and one of the following manufacturing codes: FM, GA, GB, and GC. Both the model number and the date code are stamped permanently into the torch handle at the end opposite to the valve.

These models are sold both individually and as part of an outfit (including hoses, tanks, regulators and other parts.

### The list of products that contain the potentially-affected torch handles is as follows:

Description	Kit Model Number
WELD-HDL,85 WITH C/V	1401340
WELD-HDL,85 LECO	1401346
KIT,8525 C DLX RAD	4400250
KIT, STANDARD DUTY WE250A	4403209
KIT, 85601-510 DLX CUTWELDER BAG	4403212
KIT, 8525GX-510 DLX STEELWORKER BAG	4403224
VALVE-ASY VA85	9101228
VALVE-ASY VA63	9101230

Units with "0" above the word "Harris" and to the right of the rivet head are not included in this recall.



#### Hazard identified

The torch handles can leak oxygen or fuel, posing a fire hazard.

Neither Harris Products Group nor Health Canada has received reports of consumer incidents or injuries related to the use of the torch handles in Canada.

#### **Number sold**

Approximately 350 of the recalled torches were sold in Canada and approximately 13,000 in the United States through various retailers and gas distributors.

#### Time period sold

The recalled torch handles were sold from December 2013 to May 2014 in Canada and the United States.

#### Place of origin

Manufactured in Poland.

#### Companies:

Manufacturer: Harris Calorific International

Dzierzoniow POLAND

**Distributor**: Harris Products Group

Gainesville, Georgia UNITED STATES

### What you should do

Consumers should immediately stop using the meter and contact Harris Products Group to receive a free replacement.

For more information, consumers may contact Harris Products Group by phone at 111-111-1111, Monday to Friday 9:00 am to 5:00 pm EST, or online and click on Recall for more information.

Please note that the Canada Consumer Product Safety Act prohibits recalled products from being redistributed, sold or even given away in Canada.

Health Canada would like to remind Canadians to report any health or safety incidents related to the use of this product or any other consumer product or cosmetic by filling out the <u>Consumer Product Incident Report Form</u>.

**Date modified: 2014-07-31** 

Ref: Health Canada. (July 31, 2014). Harris Products Group recalls torch handles. <a href="https://healthycanadians.gc.ca/recall-alert-rappel-avis/hc-sc/2014/40729r-eng.php">https://healthycanadians.gc.ca/recall-alert-rappel-avis/hc-sc/2014/40729r-eng.php</a>

Note: content has been edited for space. Do not assume all information is accurate.



**HANDOUTS**: Product Recall: Hot Water Boiler (4 pages) Skill Builders: Key Words & Phrases, Scanning, Tables & Lists

IN THE WORKPLACE: Health Canada issues product alerts and recalls that are designed to keep consumers and workers safe. "Safety alerts" are issued as suggestions, but if a product is recalled it is always considered a danger to human health or safety. This means it could cause injury, death or adverse health effects as a result of its normal use. The Health Canada website has a special section dedicated to the recall of Tools and Electrical Products.

Read the **Product Recall Alert** to locate the following information. Highlight the information in the document or write your answers in the space provided.

1.	How long after the posting date was the recall information modified?
2.	What 2 conditions can cause the seal to deteriorate?
3.	How many of the affected units were sold in Canada?
4.	Is a model Tft155 purchased in October 2018 affected? Why or why not?
5.	What is the common UPC prefix for all of the recalled boilers?
6.	What information is different between the Canadian and American reports?
7.	What is the hazard and the related danger in using the recalled product?



# PRODUCT RECALL: HOT WATER BOILER – ACTIVITY

8.	What should a consumer do	both right away and later?
9.	Who can install the upgrade	kit?
10.	Where and by what compan	y is the product distributed?
11.	The information in a product section?	t recall alert is divided into 3 sections. What would you title each
12.	Electrical Products" section	age of the Government of Canada website. Go to the "Tools and and select a product under current or past recall. Scan the alert to complete the table below.
	Date of alert	
	Affected products	
	Model number	
	Identified hazard	
	Name of manufacturer	
	Instructions to consumer	



# NY Thermal Inc. (NTI) recalls Trinity Tft Gas-Fired Hot Water Boilers

**Starting date:** May 15, 2018 **Posting date:** May 15, 2018

**Type of communication:**Subcategory:
Consumer Product Recall
Household Items, Appliances

Source of recall: Health Canada Issue: Public Safety Identification number: RA-66672

### Affected products

### NTI Trinity Tft Gas-Fired Hot Water Boilers

#### **Product description**

This recall involves 10 models (see table below) of Trinity Tft Gas-Fired Hot Water Boilers.

### The Serial Numbers range from 1000 to 1115541.

Model	UPC
Tft60	628233731005
Tft85	628233731036
Tft110	628233731067
Tft155	628233731098
Tft155	628233731128
Tft200	628233731159
Tft250	628233731180
Tft300	628233731210
Tft340	628233733467
Tft399	628233731241





#### Hazard identified

Deterioration of the grommet seal in certain excessively used and/or improperly installed NTI boilers could potentially permit the escape of low levels of carbon monoxide.

As of April 30, 218 the company has received 2 reports of grommet seal deterioration in Canada, and in one of those cases there was a report of a low level emission of carbon dioxide but no reports of injuries.

#### Number sold

Approximately 7359 of the affected products were sold in Canada and approximately 16,000 were sold in the United States.

#### Time period sold

The affected products were sold in Canada and the United States from October 7, 2011 to January 24, 2018.

#### Place of origin

Manufactured in United States.

#### Companies:

Manufacturer: Duravent

Albany, New York UNITED STATES

**Distributor**: NY Thermal Inc.

Saint John, New Brunswick

CANADA

### What you should do

Consumers should immediately stop using the recalled boilers and contact their installer to have an upgrade kit installed. The company will pay a certified installer to complete the upgrade. The upgrade is estimated to take approximately 10 minutes, and does not require the disconnection of the exhaust venting, gas or water lines.

For more information, consumers may contact NYI toll-free at 111-111-1111, Monday to Friday 7:00 am to 7:00 pm EST, or online through the company's website.

Please note that the Canada Consumer Product Safety Act prohibits recalled products from being redistributed, sold or even given away in Canada.

Health Canada would like to remind Canadians to report any health or safety incidents related to the use of this product or any other consumer product or cosmetic by filling out the <u>Consumer Product Incident Report Form</u>.

**Date modified: 2018-05-25** 

Health Canada. (May 15, 2018). NY Thermal Inc. (NTI) recalls Trinity Tft gas-fired hot water boilers. <a href="https://healthycanadians.gc.ca/recall-alert-rappel-avis/hc-sc/2018/66672r-eng.php">https://healthycanadians.gc.ca/recall-alert-rappel-avis/hc-sc/2018/66672r-eng.php</a> Note: content has been edited for space. Do not assume all information is accurate.



**HANDOUTS**: SDS: Auto Service Technician (5 pages) Skill Builder: Key Words & Phrases, Tables & Lists

IN THE WORKPLACE: According to the WCB (Workers' Compensation Board), it is each worker's responsibility to learn about hazardous products they use and to follow safe work procedures. Detailed information about hazardous products is provided in Safety Data Sheets, usually called SDS.

**PART 1**: SDS standards are set by law. Every SDS must contain information on the following 16 sections.

- 1. **Product and Company Information:** Includes product name, what the product is usedfor, the chemical name, the name of the manufacturer or suppliers with contact information.
- 2. **Hazardous Identification:** The related hazard classifications (with pictograms) and the potential health effects of each hazard associated with the product.
- 3. Composition/Ingredients: Chemical and common names of hazardousing redients.
- 4. First aid measures: Immediate treatment and information for medical professionals.
- 5. Fire-fighting measures: Suitable extinguishers and instructions to fire-fighters.
- 6. Accidental release measures: What to do if the product spills out of its container.
- 7. **Handling and Storage:** Precautions for safe handling.
- 8. **Exposure Controls/Personal Protection:** Guidelines for safe use and required personal protective equipment (PPE).
- 9. **Physical and Chemical Properties:** Information such as product colour and smell and details related to the product's chemicals' effects on health, safety and theenvironment.
- 10. **Stability and Reactivity:** What happens to the product if it comes into contact withanother product.
- 11. **Toxicological information:** How health can be affected by short-term and long-term exposure to the product.
- 12. **Ecological information:** Information on the environmental impact of the product.
- 13. Disposal Considerations: Information on safe waste disposal including packaging.
- 14. **Transport Information:** Shipping information such as the shipping classification and the Transport Canada PIN (Product Information Number) for the whole product.
- 15. **Regulatory Information:** Safety, health and environmental regulations specific to the product
- 16. Other information: Details of any changes to the SDS since the last revision.



On the job you will need to look up information in the SDS. You want to be efficient and start with the section that will most likely have the answers you are looking for.

- Decide which of the 16 section of the SDS you would scan first to find the answer to each of the search questions below.
- Enter the **section number** of the section in the space provided.

Search Questions	Section (1-16)
1. What is the name of the product?	
2. What is the product made of?	
3. Where should the product be stored when not in use?	
4. What should you do if this product splashes in your eyes?	
5. Is the product made in Canada?	
6. If this product catches fire, how do you put it out?	
7. What sort of PPE should be worn when using this product?	
8. What should the product smell like?	
g. How can you dispose of leftover product?	
10. What are the US shipping codes for this product?	
11. What is the product used for?	
12. What hazards are associated with this product?	
13. What changes if any have been made since the last revision?	
14. Are there potential long term risks associated with using this product?	



# SDS: AUTO SERVICE TECHNICIAN – ACTIVITY

PART 2: Locate the answers to the following questions in the SDS sections that follow. Highlight the answers or write the in the space provided below.

1.	What is the name of the product?
2.	What is the phone number to call in an emergency?
3.	What month and year was the SDS last issued?
4.	What should you do if the product gets in your eyes?
5.	Where can you find information on what protective equipment to use?
6.	When should a respirator be used as part of the PPE?
7.	How stored the product be stored? Why?
8.	Identify 2 recommended actions for how to clean up the product and 1 action that is not recommended.



# SDS: AUTO SERVICE TECHNICIAN – ACTIVITY

9.	What evidence is there that dust from the product may pose a health risk?
10.	When should calling for medical help be the first response?





#### SAFETY DATA SHEET

SAFETY DATA SHEET NUMBER: ABS-BP-SDS-1

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Integrally Molded Brake Pad PRODUCT NAME: ABS Friction Inc.

MANUFACTURER / SUPPLIER: 55 Taggart Street Guelph, ON

Canada, N1L 1M9

EMERGENCY PHONE NUMBER: (519) 763-9000

8:30 AM to 4:30 PM ET www.absfriction.com Vehicle brake pad

PRODUCT USE: August 20, 2015 DATE OF PREPARATION:

**SECTION 4 - FIRST AID MEASURES** 

INHALATION: If symptoms are experienced (e.g. cough, irritation, etc.), remove victim to fresh air. If irritation persists, seek medical attention.

SKIN CONTACT:

In case of irritation, remove contaminated clothing and flush affected areas with water. If irritation persists, seek medical attention.

Not applicable

**EYE CONTACT:** Remove any contact lenses. Immediately and continuously flush

eyes with plenty of water for at least 15 minutes. If irritation persists,

seek medical attention.

INGESTION: Seek medical attention.

PERSONAL PROTECTIVE EQUIPMENT

FOR FIRST AID RESPONDERS:

SECTION 6 - ACCIDENTAL RELEASE MEASURES PERSONAL PRECAUTIONS: Wear appropriate personal protective equipment - refer to Section 8

for more information. This would include a particulate respirator if

airborne dust is generated.

**ENVIRONMENTAL PRECAUTIONS:** Not applicable

Avoid generating dust from this product. Clean up using methods that METHODS AND MATERIALS FOR do not generate dust such as HEPA vacuum or wet clean up. Avoid CONTAINMENT AND CLEANING UP:

using compressed air for removal of dust.

SECTION 7 - HANDLING AND STORAGE

HANDLING PROCEDURES AND Handle in accordance with good industrial hygiene and safety

**EQUIPMENT:** 

practices. Minimize dust generation. Use adequate ventilation if dust is generated. Avoid contact with skin and eyes.

STORAGE REQUIREMENTS: Store the product in a dry area as contact with moisture may promote

rust.

SENSITIVITY TO MECHANICAL IMPACT: Not sensitive SENSITIVITY TO STATIC DISCHARGE: Not sensitive

ABS Friction. (August 20, 2015). Internally molded brake pad. [Safety Data Sheet]. http://www.absfriction.com/pdf/MSDS.pdf Note: This document has been modified. Sections 2, 3, 5 and 8-16 are not included here. This document is not an official version.



HANDOUTS: SDS: Carpenter (5 pages)

Skill Builders: Key Words & Phrases, Tables & Lists

IN THE WORKPLACE: According to the WCB (Workers' Compensation Board), it is each worker's responsibility to learn about hazardous products they use and to follow safe work procedures. Detailed information about hazardous products is provided in Safety Data Sheets, usually called SDS.

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- 2. **Hazardous Identification:** The related hazard classifications (with pictograms) and the potential health effects of each hazard associated with the product.
- 3. Composition/Ingredients: Chemical and common names of hazardousing redients.
- 4. First aid measures: Immediate treatment and information for medical professionals.
- 5. Fire-fighting measures: Suitable extinguishers and instructions to fire-fighters.
- 6. **Accidental release measures:** What to do if the product spills out of its container.
- 7. Handling and Storage: Precautions for safe handling.
- 8. **Exposure Controls/Personal Protection:** Guidelines for safe use and required personal protective equipment (PPE).
- 9. **Physical and Chemical Properties:** Information such as product colour and smell and details related to the product's chemicals' effects on health, safety and theenvironment.
- 10. **Stability and Reactivity:** What happens to the product if it comes into contact with another product.
- 11. **Toxicological information:** How health can be affected by short-term and long-term exposure to the product.
- 12. Ecological information: Information on the environmental impact of the product.
- 13. Disposal Considerations: Information on safe waste disposal including packaging.
- 14. **Transport Information:** Shipping information such as the shipping classification and the Transport Canada PIN (Product Information Number) for the whole product.
- 15. **Regulatory Information:** Safety, health and environmental regulations specific to the product
- 16. **Other information**: Details of any changes to the SDS since the last revision.



On the job you will need to look up information in the SDS. You want to be efficient and start with the section that will most likely have the answers you are looking for.

- Decide which of the 16 section of the SDS you would scan **first** to find the answer to each of the search questions below.
- Enter the **section number** of the section in the space provided.

Search Questions	Section (1-16)
1. What is the name of the product?	
2. What is the product made of?	
3. Where should the product be stored when not in use?	
4. What should you do if this product splashes in your eyes?	
5. Is the product made in Canada?	
6. If this product catches fire, how do you put it out?	
7. What sort of PPE should be worn when using this product?	
8. What should the product smell like?	
g. How can you dispose of leftover product?	
10. What are the US shipping codes for this product?	
11. What is the product used for?	
12. What hazards are associated with this product?	_
13. What changes if any have been made since the last revision?	
14. Are there potential long term risks associated with using this product?	



PART 2: Locate the answers to the following questions in page 1 of the SDS. Highlight the answers or write them in the space provided below.

1.	what is the name of the product?
2.	What is the phone number to call in a medical emergency?
3.	What month and year was the SDS last issued?
4.	What should you do if the product gets in your eyes?
5.	How can you prevent the product getting in your eyes?
6.	What 3 types of personal protection equipment should be worn when using the product?
7.	After the product container is closed, identify 3 precautions for how it should be stored.



# SDS: CARPENTER – ACTIVITY

3.	One hazard of the product is that it is highly flammable. Identify 2 ways you can reduce that risk.
9.	One hazard of the product is that inhaling it may cause drowsiness or dizziness. Identify 2 ways you can reduce that risk.
10.	How many pages are in the complete SDS?



### **Safety Data Sheet**



**Revision Number: 003.0** Issue date: 10/18/2018

#### 1. PRODUCT AND COMPANY IDENTIFICATION

IDH number: LePage® PL200® Construction Product name:

Adhesive Adhesive

Product type: Restriction of Use: None identified

Company address: Henkel Canada Corporation Meadowpine Boulevard 2515 Mississauga, Ontario L5N 6C3 1421928

Region: Canada Contact information:

Telephone: +1 (905) 814-6511

MEDICAL EMERGENCY Phone: Poison Control Center 1-877-671-4608 (toll free) or 1-303-592-1711 TRANSPORT EMERGENCY Phone: CHEMTREC 1-800-424-9300 (toll free) or 1-703-527-3887

Internet: www.henkelna.com

#### 2. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW** 

DANGER: HIGHLY FLAMMABLE LIQUID AND VAPOR.

CAUSES SKIN IRRITATION.

CAUSES SERIOUS EYE IRRITATION. MAY CAUSE DROWSINESS OR DIZZINESS.

MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR

REPEATED EXPOSURE.

HAZARD CLASS	HAZARD CATEGORY
FLAMMABLE LIQUID	2
SKIN IRRITATION	2
EYE IRRITATION	2A
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	3
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE	2









#### **Precautionary Statements**

Prevention:

Keep away from heat, sparks, open flames, hot surfaces - no smoking. Keep container tightly closed. No release into water. Use explosion-proof equipment. Use non-sparking tools. Take action to prevent static discharges. Do not breathe vapors, mist, or spray. Wash affected area thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective

gloves, eye protection, and face protection.

Response: If on skin (or hair): Take off immediately all contaminated clothing. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or

physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if you feel unwell. If skin irritation occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing. In case of fire: Use foam, dry chemical or carbon dioxide to extinguish.

IDH number: 1421928 Product name: LePage® PL200® Construction Adhesive

Page 1 of 8

HD Supply. (October 18, 2018). LePage® PL200® Construction Adhesive. [Safety Data Sheet]. https://www.hdsupplysolutions.ca/shop/images/custom/sds/110011\_EN.pdf

This document has been modified. Sections 3-16 (inclusive) are not included here. This document is not an official version.



# **HANDOUTS**: SDS: Heavy Equipment Operator (5 pages) Skill Builders: Key Words & Phrases, Tables & Lists

IN THE WORKPLACE: According to the WCB (Workers' Compensation Board), it is each worker's responsibility to learn about hazardous products they use and to follow safe work procedures. Detailed information about hazardous products is provided in Safety Data Sheets, usually called SDS.

**PART 1**: SDS standards are set by law. Every SDS must contain information on the following 16 sections.

- 1. **Product and Company Information:** Includes product name, what the product is usedfor, the chemical name, the name of the manufacturer or suppliers with contact information.
- 2. **Hazardous Identification:** The related hazard classifications (with pictograms) and the potential health effects of each hazard associated with the product.
- 3. **Composition/Ingredients:** Chemical and common names of hazardousing redients.
- 4. First aid measures: Immediate treatment and information for medical professionals.
- 5. Fire-fighting measures: Suitable extinguishers and instructions to fire-fighters.
- 6. Accidental release measures: What to do if the product spills out of its container.
- 7. **Handling and Storage:** Precautions for safe handling.
- 8. **Exposure Controls/Personal Protection:** Guidelines for safe use and required personal protective equipment (PPE).
- 9. **Physical and Chemical Properties:** Information such as product colour and smell and details related to the product's chemicals' effects on health, safety and the environment.
- 10. **Stability and Reactivity:** What happens to the product if it comes into contact withanother product.
- 11. **Toxicological information:** How health can be affected by short-term andlong-term exposure to the product.
- 12. **Ecological information:** Information on the environmental impact of the product.
- 13. Disposal Considerations: Information on safe waste disposal including packaging.
- 14. **Transport Information:** Shipping information such as the shipping classification and the Transport Canada PIN (Product Information Number) for the whole product.
- 15. **Regulatory Information:** Safety, health and environmental regulations specific to the product
- 16. **Other information**: Details of any changes to the SDS since the last revision.



On the job you will need to look up information in the SDS. You want to be efficient and start with the section that will most likely have the answers you are looking for.

- Decide which of the 16 sections of the SDS you would scan first to find the answer to each of the search questions below.
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13. What changes if any have been made since the last revision?	
14. Are there potential long term risks associated with using this product?	



PART 2: Locate the answers to the following questions in the SDS. Highlight the answers in the document or write them in the space provided below.

1.	What is the product used for?
2.	How many hazard types are identified? List them.
3.	What 2 things does the pictogram indicate?
4.	What should you do and not do if the product gets in your mouth?
5.	What PPE should be used with the product?
6.	Where can you find more information on possible side effects of exposure to the product?
7.	What does Category 1C refer to?



3.	How should the product be disposed of?
9.	What is Canutec and why is their contact information included in the SDS? If you need help, use your phone to search for the answer.



#### **SECTION 1. IDENTIFICATION**

**Product Identifier** Excalibur JW92

Recommended Use Parts Washer Cleaner.

Excalibur Chemicals, 1120 McDonald St., Regina, SK, S4N 4X3, 306-569-2781, Manufacturer/

www.excaliburindustrial.com **Supplier Identifier** 

Canutec, (613) 996-6666, Collect calls accepted or dial 666 on your cellular.

### **SECTION 2. HAZARD IDENTIFICATION**

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015).

#### Classification

Acute toxicity (Oral) - Category 5; Skin corrosion - Category 1C; Eye irritation - Category 2A

#### **Label Elements**



#### **Danger**

Causes severe skin burns and eye damage.

Wear protective gloves/protective clothing/eye protection/face protection.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Call a POISON CENTRE or doctor if you feel unwell.

Dispose of contents and container in accordance with local, regional, national and international regulations.

### **SECTION 4. FIRST-AID MEASURES**

#### Inhalation

Move to fresh air. Keep at rest in a position comfortable for breathing.

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Quickly and gently blot or brush away excess chemical. Wash with plenty of water.

#### **Eye Contact**

Quickly and gently blot or brush chemical off the face. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

#### Ingestion

Rinse mouth with water. Drink 1 or 2 glasses of water. Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting.

#### **First-aid Comments**

Get medical advice or attention if you feel unwell or are concerned.

Most Important Symptoms and Effects, Acute and Delayed

Review Section 11 (Toxicological) of this Safety Data Sheet.

**Immediate Medical Attention and Special Treatment** 

Special Instructions: Treat Symptomatically.

Excalibur Industrial. (2016). Mirage JW92 SDS (Safety Data Sheet). Saskatoon, SK: Swish-Kemsol

This document has been modified. Sections 3 and 5-16 (inclusive) are not included here. This document is not an official version.



HANDOUTS: SDS: Welder (5 pages)

Skill Builders: Key Words & Phrases, Tables & Lists

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13. What changes if any have been made since the last revision?	
14. Are there potential long term risks associated with using this product?	



**PART 2**: Locate the answers to the following sections of the SDS. Highlight the answers or write the in the space provided below.

1.	What is the product?
2.	How many hazard types are identified? List them.
3.	What day and month was the SDS last updated? How could it be written to make it clearer?
4.	What should you do if the product, when hot, gets on your skin?
5.	What component of the product causes the greatest health hazard? What disease can it cause?
6.	Where can you find more information on what personal protection to use whenhandling spills?
7.	How should the product be stored?



1.	One hazard of the product is contact with its fumes. What part of the body can be affected by long-term overexposure to fumes? Identify 1 way you can reduce that risk.
2.	Identify 2 ways the product can harm your eyes.
3.	How many pages are in the complete SDS?



### SAFETY DATA SHEET

Page: 1(6)

SDS Number: CAN324-D Date Revised: 05/01/2014

#### PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** ESAB OK® BARE STAINLESS STEEL WELDING ELECTRODES AND RODS

Application: Arc Welding Classification: **AWS A5.9** 

ESAB GROUP CANADA, INC., 6010 Tomken Road, Mississauga, ON L5T 1X9 Supplier:

Telephone No.: (905) 670-0220, 1-877-935-3226

Web site: www.esab.ca

#### 2. HAZARDS IDENTIFICATION

Emergency Overview: Metal wires or rods in varying colors. These products are normally not considered hazardous as shipped. Gloves should be worn when handling to prevent cuts and abrasions.

These products contain nickel, which is classified as toxic by prolonged inhalation, a skin sensitizer and a suspect carcinogen. In the form that nickel is present in these products it does not contribute to a hazard classification of the products.

Skin contact is normally no hazard but should be avoided to prevent possible allergic reactions.

Persons with a pacemaker should not go near welding or cutting operations until they have consulted their doctor and obtained information from the manufacturer of the device.

When these products are used in a welding process, the most important hazards are heat, radiation, electric shock and welding fumes.

Heat: Spatter and melting metal can cause burn injuries and start fires.

Radiation: Arc rays can severely damage

eyes orskin. Electricity: Electric shock can kill.

Fumes: Overexposure to welding fumes may result in symptoms like metal fume fever, dizziness, nausea, dryness or irritation of the nose, throat or eyes. Chronic overexposure to welding fumes may affect pulmonary function. Prolonged inhalation of nickel and chromium compounds above safe exposure limits can cause cancer. Overexposure to manganese and manganese compounds above safe exposure limits can cause irreversible damage to the central nervous system, including the brain, symptoms of which may include slurred speech, lethargy, tremor, muscular weakness, psychological disturbances and spastic gait.

#### 4. FIRST AID MEASURES

Inhalation: If breathing has stopped, perform artificial respiration and obtain medical assistance immediately! If breathing is difficult, provide fresh air and call physician.

Eye contact: For radiation burns due to arc flash, see physician. To remove dusts or fumes flush with water for at least fifteen minutes. If irritation persists, obtain medical assistance.

Skin contact: For skin burns from arc radiation, promptly flush with cold water. Get medical attention for burns or irritations that persist. To remove dust or particles wash with mild soap and water.

Electric shock: Disconnect and turn off the power. Use a nonconductive material to pull victim away from contact with live parts or wires. If not breathing, begin artificial respiration, preferably mouth-to-mouth. If no detectable pulse, begin Cardio Pulmonary Resuscitation (CPR). Immediately call a physician.

General: Move to fresh air and call for medical aid.



#### FIRE FIGHTING MEASURES 5.

No specific recommendations for welding consumables. Welding arcs and sparks can ignite combustible and flammable materials. Use the extinguishing media recommended for the burning materials and fire situation. Wear self-contained breathing apparatus as fumes or vapors may be harmful.

#### **ACCIDENTAL RELEASE MEASURES**

Solid objects may be picked up and placed into a container. Liquids or pastes should be scooped up and placed into a container. Wear proper protective equipment while handling these materials. Do not discard as refuse.

Personal precautions: refer to Section 8.

Environmental precautions: refer to Section 13.

#### **7**. **HANDLING AND STORAGE**

Handling:

Handle with care to avoid stings and cuts. Wear gloves when handling welding consumables. Avoid exposure to dust. Do not ingest. Some individuals can develop an allergic reaction to certain materials. Retain all warning and identity labels.

Storage:

Keep separate from chemical substances like acids and strong bases, which could cause chemical reactions.

ESAB (2014). ESAB OK® bare stainless steel welding electrodes and rods. (Safety Data Sheet). https://www.esab.ca/ca/en/support/documentation/upload/can324.pdf

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