

2027-01-29 · 80 minutes

Lab safety and SDS

Your goal: Demonstrate safe lab conduct and read a Safety Data Sheet to identify hazards, PPE, and first-aid measures.

One product: SDS reading worksheet identifying hazard class, required PPE, and first-aid measures for one assigned chemical.

Question: What can a section heading help you find, and what can it not decide?

Start the work

Compare evidence with the stated requirement, and keep access, acknowledgment and submission as separate checks.

1. Watch the lab-safety briefing and locate eyewash, shower, extinguisher, and SDS binder.
2. Open one SDS and find Section 2 (hazards), Section 8 (PPE), and Section 4 (first aid).
3. Match three common lab chemicals to their required PPE.
4. Complete the safety/SDS practical checkpoint with the instructor.
5. Submit your SDS reading worksheet with hazards and PPE identified.

Save navigation preparation locally if the actual inputs or assignment are unavailable. Ask for what you need to complete the authentic worksheet and checkpoint; after uploading, check that Schoology shows Submitted. No fictional match proves actual safety work.

Words you will use

Safety Data Sheet (SDS)

A document describing a product's hazards and safety information.

section

A labeled part of a document.

heading

The title of a section.

identification

Information used to establish what a product is.

hazard

Something with the potential to cause harm.

hazard class

A grouping of hazards under stated classification criteria.

exposure

Contact with a hazard.

control

A measure used to reduce risk.

personal protective equipment (PPE)

Equipment selected to help protect a person from particular hazards.

first-aid measures

The document topic concerning initial help after an injury or exposure; no treatment is supplied here.

handling

Working with or moving material.

storage

Keeping material in a designated place and conditions.

matched document

A document that describes the actual assigned product and form.

standard operating procedure (SOP)

Written directions for a specific task.

criterion

A stated requirement for checking work.

evidence

Information supporting a claim.

limitation

What the supplied information cannot establish.

Still needed

Waiting for a required input or action.

not checked

No actual check has been performed.

supervised

Performed with the required teacher oversight.

checkpoint

A required check of specified work or performance.

signoff

Genuine confirmation by the responsible instructor.

confirmation

Evidence that the intended action occurred.

navigation

Finding the relevant part of a document.

request

The information someone asks to locate.

claim

A statement about what the evidence supports.

permission

Approval for the specific action.

annotation

A note explaining part of a document.

async

Work assigned outside the live class interval.

scenario

A described situation for a task.

submission

Sending work to its assigned destination.

WHMIS

Canada's Workplace Hazardous Materials Information System.

risk

The chance and possible consequences of harm in stated conditions.

H1: Document practice and real safety work

Today's objective and steps describe authentic classroom work. This page supplies document-navigation preparation only. A Safety Data Sheet, or SDS, describes a product's hazards and safety information.

To learn an assigned product's hazards, use its matching full SDS with the teacher's guidance. A matched document describes the actual assigned product and form. No product or matching SDS is supplied here.

Answer the first opening question: how would you find a chemical's hazards in a new lab? Name the matching source and the teacher input you would need; do not guess a hazard.

For the emergency comparison, explain why memorizing chemical names or practicing section lookup does not establish emergency readiness. Actual emergency response follows the site plan, training and teacher direction. This page gives no response procedure.

The teacher selects the route. With authentic inputs, complete the teacher-directed work and its actual worksheet; do not add the fictional tasks here. Without those inputs, complete the navigation-only tasks and ask for what you need before doing authentic work.

Both routes use these opening questions and the exit explanation. Navigation practice cannot authorize handling materials, using emergency equipment, choosing PPE or passing the instructor checkpoint.

N1: A heading guide, not a chemical SDS

The Canadian Centre for Occupational Health and Safety lists these section headings. This guide supplies document structure only. It contains no chemical name, hazard value, PPE selection or treatment. [CCOHS]

- 1: Identification. This heading locates product identity information.
- 2: Hazard identification. This heading locates information about product hazards.
- 4: First-aid measures. This heading locates the document's first-aid information; no treatment is supplied in this guide.
- 7: Handling and storage. This heading locates those topics; it gives no handling or storage instruction here.
- 8: Exposure controls/Personal protection. This heading covers controls as well as individual protection. PPE is only part of that topic.

This Canadian WHMIS reference is used for heading navigation, not as Ohio law. Actual work also needs the matching full document, task-specific controls, local procedure, instruction and permission.

For a heading request, identify the information type, match it to this guide and copy the section number and full heading. Then state what that match cannot establish.

S1: Complete fictional navigation requests

This invented request sheet is not a chemical SDS or laboratory scenario. It supplies no chemical facts. Use only N1 to locate where each kind of information belongs.

Request A asks for the section that identifies the product. Request B asks for the section about hazards. Request C asks for the section about exposure controls and personal protection.

Request D asks for the section containing first-aid information. Request E asks for the section about handling and storage. For each request, give the section number, full heading and matching information type.

Now consider Request F: choose the actual PPE for an assigned chemical. The record supplies no chemical identity, matching SDS, task or local procedure. Explain why N1 cannot answer F and name two missing inputs.

Navigation-only work: complete A through E and the F limit. Do not invent a product, pairing, handling rule or treatment. Actual-route learners do not need this fictional task.

R1: One worksheet and three separate matches

The real product concerns one assigned chemical. It requires its hazard class, required PPE and first-aid measures. A hazard class groups hazards by stated classification criteria. This page supplies no classification for a chemical.

The separate matching task concerns three assigned chemicals. Each needs its own matching SDS and the teacher's actual task context. One completed worksheet does not establish all three matches.

PPE means personal protective equipment. Selection depends on the actual task and its hazards and controls; a generic glove word is not a supported match. No chemical-to-PPE pair is supplied here.

On the navigation-only route, name the missing source or next action for each of the three matches separately. Also identify what you need for each of the three real worksheet components. Do not fill them with N1 headings as if they were chemical facts.

The authentic worksheet and matches use the teacher-approved route when the required inputs arrive. The teacher confirms the full task, local standard operating procedure, instruction, controls and permission.

E1: A complete missing-input decision

Fictional record E1 contains N1 and completed heading matches only. It has no assigned product, full SDS, task, local procedure, practical observation or instructor signoff.

The decision rule is to claim only what the record supports. Choose between navigation practice complete and actual safety checkpoint complete. Cite two missing inputs and explain the limit.

The actual practical includes the instructor's observation under the approved requirements. Signoff is the instructor's genuine confirmation; a written answer cannot produce it.

The async extension needs the actual provided scenario, matching SDS and approved task/local procedure. Ask the teacher for the required inputs before writing its handling plan. The equipment/scenario extension also needs real instruction and a teacher-selected scenario; no plan is

invented here.

If the actual myPLTW resource cannot open, record access unavailable or not checked and ask the teacher for the route. Continue this supplied navigation work. Do not infer earlier login or safety completion.

Q1: Navigation-only self-check and recovery

For S1, match the key words in each request to the N1 heading that names the same information type. Each of A through E matches one N1 heading; copy its section number and full heading.

For F, check that you explained why N1 cannot give a chemical-specific answer and named two inputs the record does not supply. A heading match identifies a location in a document, not a suitable PPE choice.

For E1, check that your claim names only what the record contains, cites two inputs the record does not supply and states what it cannot establish.

Check each S1 answer against N1. Repair one error or explain why each match is supported. Then correct this claim: I found Section 8, so my practical and three chemical matches are complete.

If stuck, start with Request B and match the word hazards to N1. Then finish all five requests, F and the E1 limit. The authentic route does not require these fictional checks.

Both routes close by naming one SDS section and its information type. Explain one thing a heading alone cannot establish. Use N1; do not provide a chemical instruction.

P1: Keep authentic obligations separate

Navigation-only route: start the work-check record during each interval. Give brief evidence of what you actually did or a next action you need. Complete only actions actually performed; do not copy private records.

Keep written navigation and actual briefing separate. Give each equipment location its own row: eyewash, shower, extinguisher and SDS binder. No room location or equipment use is supplied here.

Keep the assigned product/matching SDS input separate from the real worksheet's hazard-class, PPE and first-aid components. Give each of the three chemical/PPE matches its own row.

Also separate task/SOP/instruction/controls/permission, practical performance and instructor signoff. In that grouped input row, name any input you still need. Ask for the assigned inputs before doing the async handling plan or equipment/scenario extension; keep these as separate requirements.

Finish separate rows for enrolled PLTW resource/access, official activity completion, confirmed Schoology assignment and actual submission. These are distinct from the written preparation. This makes 22 brief work-check rows in total.

The actual route uses the teacher's real worksheet and checkpoint records, not a second full navigation packet. Name missing genuine requirements and ask for them on that route too.

Open the linked BI January 29 assignment and follow its posted instructions and deadline. If access fails, save the written preparation locally and ask the teacher for help.

Official activity completion needs the teacher's actual requirements and signoff; this packet cannot establish it. January 27 is the previous lesson, January 28 is catch-up and February 1 is the next design-notebook lesson.

M1: navigation-only model with a different document

This invented school-library guide has three entries: page 2 Opening times, page 5 Book loans, and page 7 Contact desk. It contains headings only, not the actual pages.

The request is to locate borrowing information. I choose page 5 Book loans because the request concerns borrowing. My evidence is the supplied contents entry.

I cannot state a loan period from that heading. The period is not supplied. I need the actual page or library guidance before making that claim.

The method is to match the requested topic, cite the supplied locator and name the missing detail. Apply that method to S1 yourself. Library page numbers do not answer SDS requests.

Use M1 only on the navigation-only route. Actual chemical work uses the teacher's matching documents and controls; it is not completed by this model.

Try the decision

Navigation-only route, a different record from E1: a learner found the SDS binder on an invented room map but has not taken the briefing tour. What does that record establish?

- Only that the map was read; ask the teacher to confirm the real location on the tour.
- Reading the map establishes that the room location check is complete.
- The eyewash, shower and extinguisher locations are confirmed too, without a tour.

Explain your choice using the reading. Discuss it or say it to yourself. This practice does not add another submission.

Your 80-minute flow

0–10 minutes	Use H1 for both opening answers. Join the actual briefing only through the teacher's route; otherwise ask where to find the four locations before saying you checked them.
10–30 minutes	With real inputs, follow the teacher's actual SDS task. Without them, read N1/M1 and complete S1 navigation requests; no chemical answer is inferred.
30–45 minutes	Use the actual three-chemical task only with matching inputs and instruction. Otherwise use R1 to separate the worksheet and the three matches that still need their assigned inputs.
45–65 minutes	Complete the authentic checkpoint only under instructor requirements. Without inputs, use E1/Q1 for the fictional decision and checks, then continue the P1 work checks.
65–75 minutes	Submit the genuine worksheet only through the confirmed route. Otherwise finish the brief P1 record and save preparation locally; ask how this preparation should accompany the genuine worksheet.
75–80 minutes	Use N1 to name a section, its information type and one limit.

Your response record

Use these labels on paper or in your document. The space below also works when this page is printed.

Both routes: opening source and readiness questions

Use H1 to answer both opening questions. Name the matching source and teacher input; explain the limit of document practice for emergency readiness.

H1 supplies the needed distinction. Give no chemical fact or emergency procedure.

Use this space or the same labeled section in your existing document. Add paper when your table, graph or drawing needs more room.

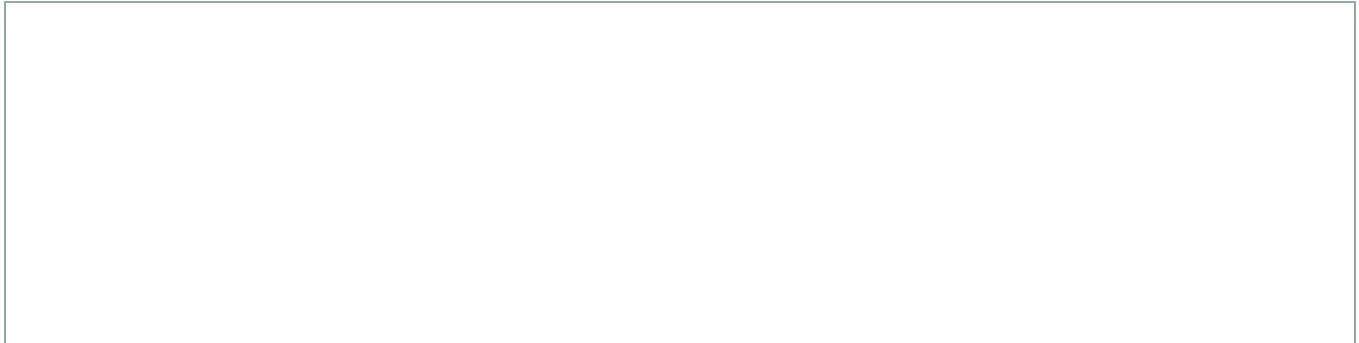


Navigation-only route: five requests and one limit

Use N1 and S1 to answer A through E with number, full heading and information type. Explain why F cannot be answered and name two missing inputs.

Use M1's locate-and-limit method. The authentic route does not require this fictional task.

Use this space or the same labeled section in your existing document. Add paper when your table, graph or drawing needs more room.

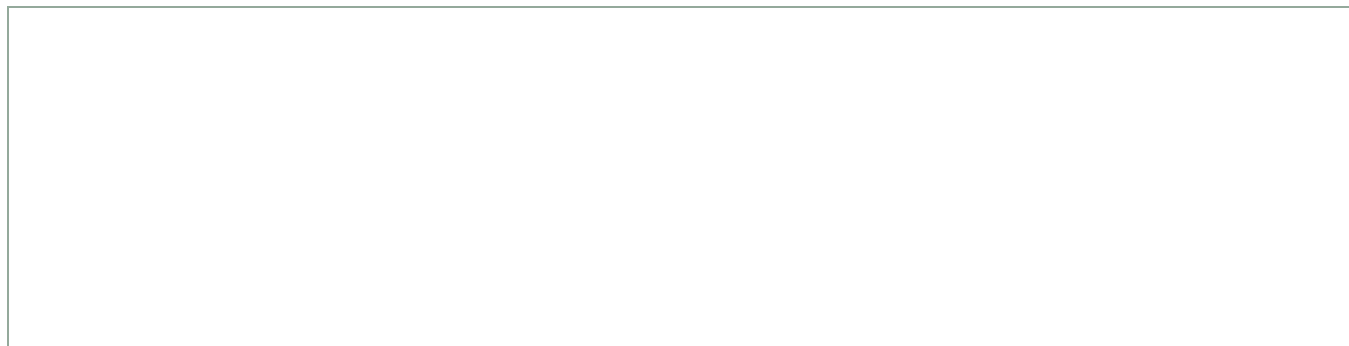


Navigation-only route: keep the two real tasks separate

Use R1 to state what belongs in the one-chemical worksheet and why three separate chemical/PPE matches still need their own inputs.

Describe requirements only. Do not supply a chemical, PPE pairing or first-aid treatment. Actual-route learners use their teacher's real tasks.

Use this space or the same labeled section in your existing document. Add paper when your table, graph or drawing needs more room.

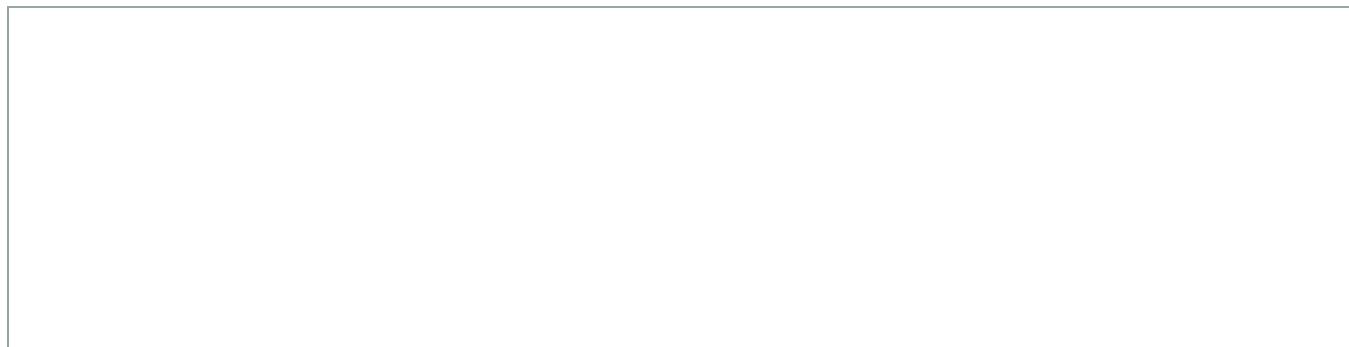


Navigation-only route: make the E1 decision

Choose the supported E1 completion claim. Cite two missing inputs, explain the limit and identify the next teacher input needed.

Only N1 and heading matches are supplied. The authentic route does not need a fictional decision.

Use this space or the same labeled section in your existing document. Add paper when your table, graph or drawing needs more room.



Navigation-only route: check and repair

Use Q1 to check all five matches and F. Repair an error or justify the matches, then correct the Section 8 completion claim.

The authentic route uses teacher feedback on its real work; it does not require these paper checks.

Use this space or the same labeled section in your existing document. Add paper when your table, graph or drawing needs more room.

Navigation-only route: 22 brief work checks

Use each P1 row for brief evidence of what you did or a next action you need as you go. Update only changed rows at closing.

Actual-route learners use their teacher's worksheet/checkpoint records instead. No signature, private detail or invented completion belongs here.

Use this space or the same labeled section in your existing document. Add paper when your table, graph or drawing needs more room.

Both routes: section and limit

Name one SDS section and its information type. Explain one thing its heading alone cannot establish.

N1 supplies the heading guide. No chemical instruction is requested.

Use this space or the same labeled section in your existing document. Add paper when your table, graph or drawing needs more room.

Check your product

- Navigation-only route: all five requests have a matching number, full heading and information type; F names missing inputs.
- Navigation-only route: E1 and the 22 work checks keep written practice separate from genuine safety work.
- Actual route: the teacher confirms authentic worksheet, matches and checkpoint requirements; fictional tasks are not additional requirements.
- Both routes: the exit explains a section's scope without inventing chemical instructions.

Keep the limit: This guide supports document-heading navigation only. It cannot supply any chemical facts, PPE selection, treatment, handling plan, emergency procedure or safety clearance.

Turn in your work

Use the linked BI assignment for the actual one-chemical SDS worksheet. Include its required hazard-class, PPE and first-aid information only from the real matching document and teacher task. Ask how written preparation should accompany it. After uploading, check that Schoology shows Submitted.

Save navigation preparation locally if the actual inputs or assignment are unavailable. Ask for what you need to complete the authentic worksheet and checkpoint; after uploading, check that Schoology shows Submitted. No fictional match proves actual safety work.

[Open this assignment in Schoology.](#)

Carry forward

Use headings to locate information, then ask the teacher for missing product facts and directions for real safety checks.

On February 1, set up the design notebook using actual course requirements and honest evidence records. Which notebook sections will keep sources, proposed changes and actual results distinct?

Sources and resources

[Open today's page](#)

CCOHS · WHMIS - Safety Data Sheet (SDS)

Canadian Centre for Occupational Health and Safety

https://www.ccohs.ca/oshanswers/chemicals/whmis_ghs/sds.html