# Lab Introduction : General Chemistry

202-SN1-RE

*with Olivia Bibollet-Bahena*

*and Élora Massicotte*

office: 5th floor

# Moodle Page

## Laboratory

- Lab Safety Rules (2024-2025)
- Organization of the Lab Notebook (PW2025)
- HazardTemplate and Instructions (PW2025)
- WHMIS pictograms
- HazardTemplate (printable)
- Lab Follow-Up Guidelines (PW2025)

**Note: This is a tentative schedule that could change throughout the semester. Review this document frequently.**

| Date | Content | Activities |
|---|---|---|
| **Day 1**<br>**May 27** | • Course Syllabus<br>• Lab safety and expectations<br>• Unit 1: Fundamentals | • Uncertainty Activity Intro<br>• Prelab work |
| **Day 2**<br>**May 28** | | • Lab Equipment Activity<br>• Lab 1: Measurement<br>• Lab 2: Limiting and Excess Reagents |
| **Day 3**<br>**May 29** | • Unit 1 *continued* | • Nomenclature Activity |
| **Day 4**<br>**May 30** | • Unit 2: Chemical Composition | • Lab 1 and 2 Follow-Up (Sunday) |
| **Day 5**<br>**June 3** | • Unit 3: Stoichiometry and Chemical Reactions | • Quiz 1 (Units 1-2)<br>• Prelab work |
| **Day 6**<br>**June 4** | | • Lab 3: Changes<br>• Lab 3 Follow-Up<br>• Lab 4: Halogens<br>• Lab 4 Follow-Up |
| **Day 7**<br>**June 5** | • Unit 3 *continued* | • Review for midterm |
| **Day 8**<br>**June 6** | • Unit 4: Atomic Structure and Periodicity | • Activity |
| **Day 9**<br>**June 10** | • Unit 4 *continued* | • Midterm Test (20%)<br>• Activity (Early Quantum) |
| **Day 10**<br>**June 11** | • Unit 4 *continued* | |
| **Day 11**<br>**June 12** | • Unit 4 *continued*<br>• Unit 5: Chemical Bonds and Structures | |

# Prelab on Moodle

- Each experiment will have prelab questions
- You have two attempts to each question
- Each prelab assignment will be available the day before the experiment from noon to midnight
- Each prelab assignment will be worth 15% of the lab grade

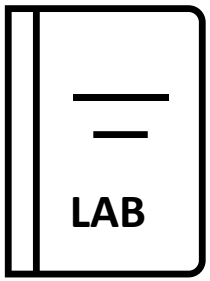
# Lab Entry Requirements

## Personal Protective Equipment

- Material:

LABCOAT

SAFETY GOGGLES




LAB NOTEBOOK

- Dress code:
  - Hair tied back
  - Long pants
  - Closed toe shoes

## Punctuality

- Arrive on time
  - 10 min early
  - 8:50 AM → 9:00 AM

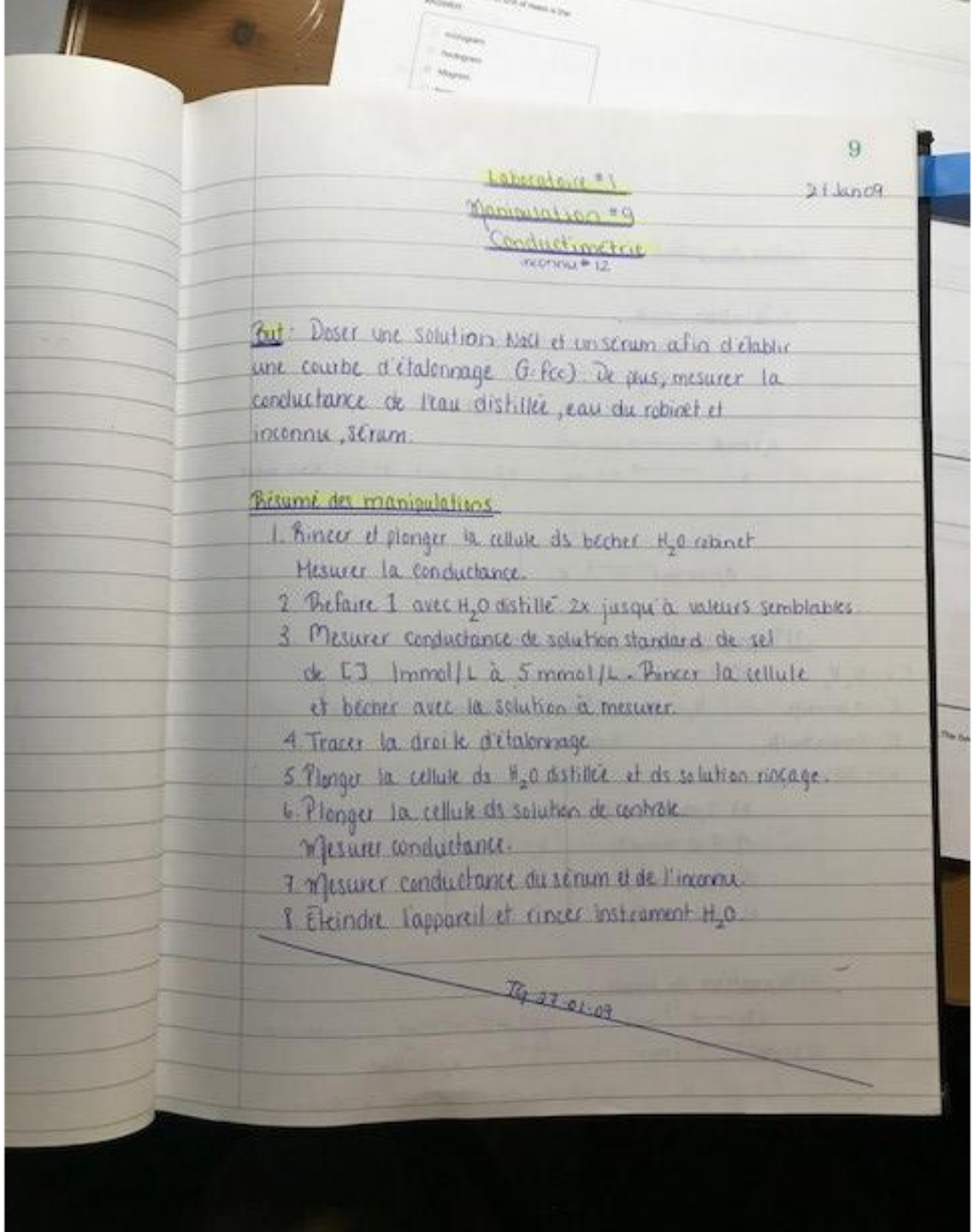
## Pre-lab

- Prepwork:
  - For <u>EVERY</u> lab

# Lab Notebook Requirements

- Lab Notebook Guidelines are posted on Moodle
- Table of contents
- Right-side of page
  - Left-side is blank (for calculations, sketches, questions…)
  - **Ink!**
- Prepwork:
  - Before every lab

# Example



9

Laboratoire n°1 — 21 Jan 09

Manipulation n°9

Conductimètre

inconnu n°12

But: Doser une solutions NaCl et un sérum afin d'établir une courbe d'étalonnage G (ou C). De plus, mesurer la conductance de l'eau distillée, eau du robinet et inconnu, sérum.

Résumé des manipulations

1. Rincer et plonger la cellule ds bécher $H_2O$ robinet. Mesurer la conductance.
2. Refaire 1 avec $H_2O$ distillé 2x jusqu'à valeurs semblables.
3. Mesurer conductance de solution standard de sel de [ ] 1mmol/L à 5 mmol/L. Rincer la cellule et bécher avec la solution à mesurer.
4. Tracer la droite d'étalonnage.
5. Plonger la cellule ds $H_2O$ distillée et ds solution rinçage.
6. Plonger la cellule ds solution de contrôle. Mesurer conductance.
7. Mesurer conductance du sérum et de l'inconnu.
8. Éteindre l'appareil et rincer instrument $H_2O$.

Tg 27.01.09

# Safety Information

⇒WHMIS

Workplace Hazardous Materials

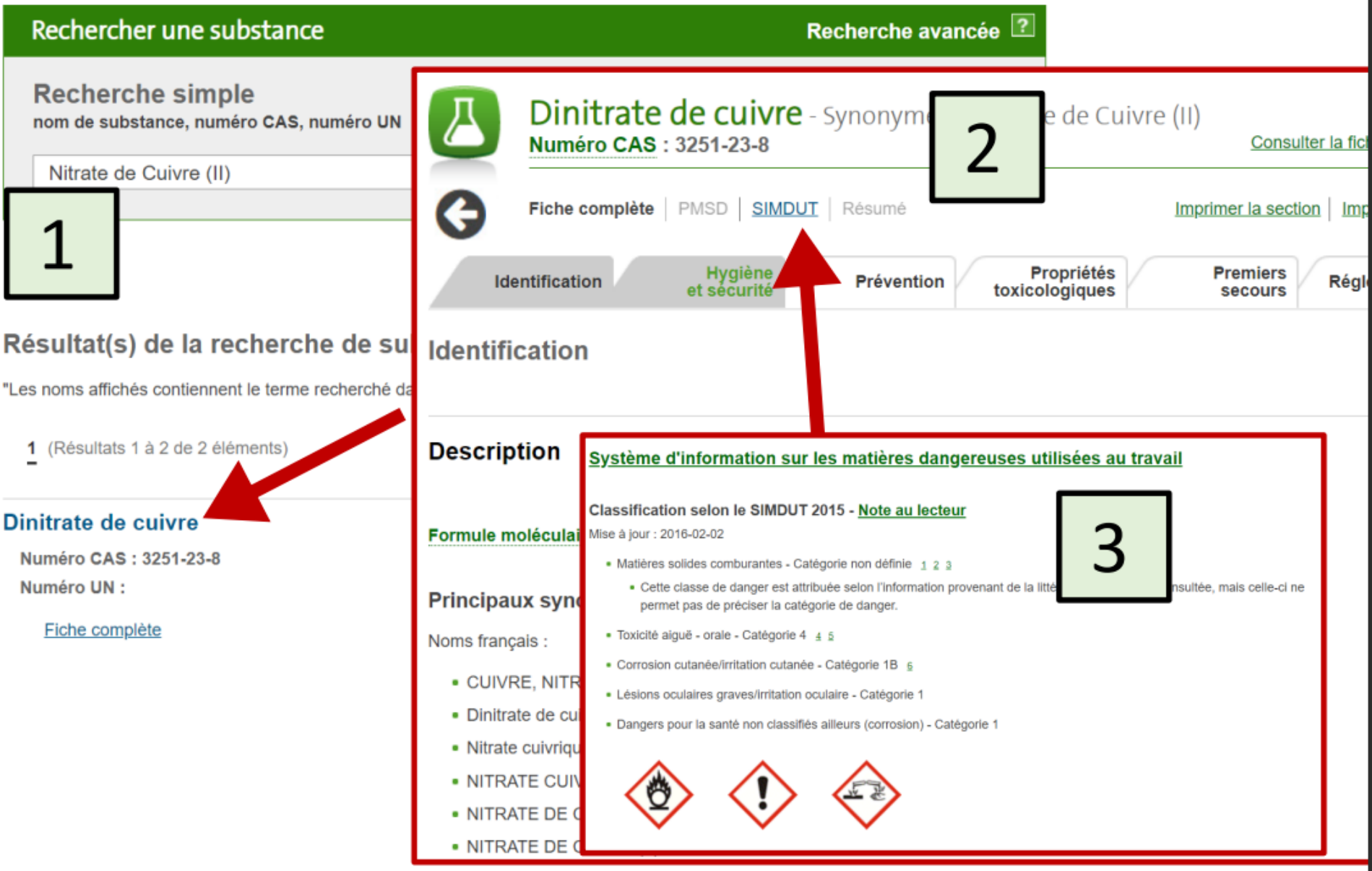
Information System

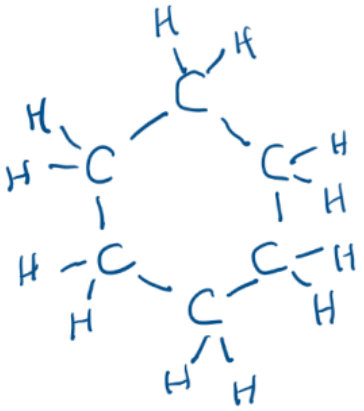
# Where can you find WHMIS information?

- Reptox (CNESST):

  [Répertoire toxicologique - CNESST (gouv.qc.ca)]


# Example: Copper (II) Nitrate



| **Chemical Name:** Cyclohexane | **Mol Wt:** 82.16 g/mol | **Density:** *(for liquids)* 0.7785 g/mL |
|---|---|---|
| | **mp:** *(for solids)* N.A. °C | **bp:** *(for liquids)* 80.75 °C |
| **Molecular Formula:** $C_6H_{12}$ **Structure:**  | **Hazard Identification:** **Pictogram:** *include as many as needed.*  **Hazard Statement:** *describe the hazard(s) in words.* • DANGER • Highly flammable. • May be fatal if swallowed and enters lungs. • Skin irritation. • May cause drowsiness or dizziness • Very toxic to aquatic life with long lasting effects. | |

# Before leaving:

- The technician or I need to approve your station
  - Clean glassware

- The technician or I will sign off on your results
  - You will include digital records of all pages related to the experiment in the appendix of your lab report

# Intro Activity, and Labs 1 and 2

The prelab assignments for Lab 1 and Lab 2 will be available at noon.

The lab documents with the protocol will also be available at noon. Prepare your lab notebook with all the required sections.

Lab notebook pages will be checked at the beginning of each lab. All pages will be scanned and submitted with the Follow-Up report.

# Questions?