ENVIRONMENTAL HEALTH & SAFETY
UNIVERSITY of WASHINGTON

Standard Operating Procedure

Caffeine solution

Print a copy and insert into your *Lab-Specific Chemical Hygiene Plan*.

Section 1 – Lab-Specific Information

Building/Room(s) covered by this SOP:	**B59**
Unit or department:	**UW Proteomics Resource**
Principal Investigator Name:	**Michael Hoopmann**
Principal Investigator Signature/Date:	 **6/5/2026**
This SOP was created by (if not PI):	
Name/Title/Date/Signature	**Michael Hoopmann** **Senior Research Scientist** **6/5/2026** 

Section 2 – Hazards

Highly flammable liquid and vapor.

Toxic if swallowed, in contact with skin or if inhaled.

Causes damage to organs.

Section 3 – Engineering and Personal Protective Equipment (PPE)

Engineering Controls: Use of caffeine solution should be conducted in a properly functioning chemical fume hood whenever possible. The chemical fume hood must be approved for use by EH&S.

Hygiene Measures: Avoid contact with skin, eyes, and clothing. Wash hands before breaks and immediately after handling the product.

Hand Protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye Protection: Face shield and safety glasses.

Skin and Body Protection: Laboratory coats must be worn and be appropriately sized for the individual and buttoned to their full length. Personnel must also wear full length pants, or equivalent, and close-toed shoes. Full length pants and close-toed shoes must be worn at all times by all individuals that are occupying the laboratory area. The area of skin between the shoe and ankle must not be exposed.

Respiratory Protection: If caffeine solution is being used outside of a chemical fume hood, a full-face respirator may need to be used. If this activity is necessary, contact EH&S so a respiratory protection analysis can be performed.

Section 4 – Special Handling and Storage Requirements

- Do not over purchase; only purchase what can be safely stored in the laboratory.
- Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.
- Keep container upright and tightly closed.
- Opened containers must be carefully resealed and kept upright to prevent leakage.
- Store in appropriate flammable cabinet.
- Keep away from sources of ignition. Avoid heat and shock or friction when handling.
- Use in the smallest practical quantities for the experiment being performed.
- Inventory the chemical in MyChem and ensure the manufacturer's SDS is linked to the inventory entry. Keep a printed or electronic copy of the SDS readily available to all personnel working in the laboratory at all times.
- Containers should remain closed when not in use.
- Label new containers appropriately. Label should indicate the name of the chemical(s) in the container. Avoid using chemical abbreviations (acceptable if a legend is present in the lab) and formulae.
- Containers should be in good condition and compatible with the material.

Section 5 – Spill and Accident Procedures

Assess the extent of danger. Help contaminated or injured persons. Evacuate the spill area and ensure others are aware of a spill. Avoid breathing vapors. If there is an imminent threat of a fire, pull the nearest fire alarm station to evacuate the building and **dial 911**.

If possible, confine the spill to a small area using a spill kit or inert absorbent material. Keep others from entering contaminated area (e.g., use caution tape, barriers, etc.).

For a **minor spill (< 500 mL)** that does not pose a threat to personnel, contact EH&S at 206.543.0467 during normal business hours (Monday – Friday, 8 AM – 5 PM) for spill cleanup assistance. Use appropriate personal protective equipment and clean-up material for chemical spilled. Double bag spill waste in clear plastic bags and label for chemical waste collection.

For assistance after hours or in the case of a **large spill (> 500 mL), dial 911**.

If personnel have become exposed, seek medical attention immediately and **dial 911** as needed.

If chemical is spilled on body or clothes, remove clothing and rinse body thoroughly in emergency shower for at least 15 minutes. Seek medical attention. Notify supervisor and EH&S immediately.

If chemical is splashed into eyes, immediately rinse eyeball and inner surface of eyelid with water from the emergency eyewash station for 15 minutes by forcibly holding the eye open. Seek medical attention. Notify supervisor and EH&S immediately.

Any spill, exposure or near miss incident requires the involved person or supervisor to complete and submit the Online Accident Reporting System (OARS) form on the EH&S website within 24 hours (certain types of incidents require immediate notification).

Section 6 – Waste Disposal Procedures

Store caffeine solution waste in a closed container that is properly labeled as a hazardous waste. Caffeine solution waste cannot be poured down the drain. Complete an online Chemical Waste Collection Request to arrange for disposal by EH&S.

Section 7 – Protocol

For use in preparation of mass spectrometry calibration standards.

NOTE: Any deviation from this SOP requires approval from the Principal Investigator.

Section 8 – Documentation of Training

Prior to conducting any work with corrosives, the Principal Investigator must ensure that all laboratory personnel receive training on the content of this SOP.

PARTICULARLY HAZARDOUS SUBSTANCE INVOLVED?

YES

Section 9 – Approvals required

All staff working with caffeine solution must be trained on this SOP prior to starting work. They must also review the caffeine solution SDS, and it must be readily available in the laboratory. All training must be documented and maintained by the PI or their designee.

Prerequisites

1. You must have completed Managing Laboratory Chemicals in the last three years. Login to check.
2. Read and understand the SDS for caffeine solution.
3. Read, understand, and sign this SOP.
4. Contact your Principal Investigator (PI) AND the Chemical Hygiene Officer (CHO) indicating that you have completed all prerequisites and await approval.

Section 10 – Decontamination

All parts that come in contact with methanol should be rinsed into an appropriately labeled waste container.

Section 11 – Designated area

To be used only in the B59 laboratory solution preparation area.

I have read and understand the content of this SOP:

Name	Signature	Date