



Standard Operating Procedure

Chloroform

Section 1 – Lab-Specific Information

Building/Room(s) covered by this SOP:

FTR 209

Unit or department:
Sciences

School of Aquatic & Fishery

Principal Investigator Name:

Steven Roberts

Principal Investigator Signature/Date:

Section 2 – Hazards

REQUIRED -Identify the stock chemicals, intermediates, final compounds and wastes involved in your work.

Chloroform is a carcinogen. It is harmful if swallowed and causes skin irritation, serious eye irritation, and may cause drowsiness or dizziness. Chloroform is suspected of causing cancer and causing genetic defects of unborn children. It may cause damage to organs (liver, kidney) through prolonged or repeated exposure.

Exposure Limits:

OSHA PEL (8 HR. TWA):	2 ppm
OSHA Short Term Exposure Limit:	2 ppm
ACGIH TLV/TWA:	10 ppm



Section 3 – Environmental/Ventilation Controls



Engineering Controls: Use of chloroform should be conducted in a properly functioning chemical fume. The chemical fume hood must be tested and passed by EH&S.

Hygiene Measures:

Avoid contact with skin, eyes, and clothing. Wash hands after removing PPE before breaks and immediately after handling the chemical. If **chloroform** come(s) into contact with any PPE, the PPE shall be immediately removed and discarded properly. Any potentially exposed body parts should be washed immediately. Wash hands before breaks and immediately after handling the product.

Skin and body protection. Chemically compatible laboratory coats that fully extend to the wrist 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-toe shoes. The area of skin between the shoe and ankle must not be exposed.

Hand protection. Hand protection is required for the activities described in this SOP.

Gloves must be inspected prior to use, including a check for pinholes.

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 immediately after glove removal.

Eye Protection. ANSI Z87.1-compliant eye protection (safety glasses or chemical splash goggles) is required for all work with chloroform. A face shield may also be appropriate depending on the specific application. Ordinary prescription glasses will NOT provide adequate protection unless they also meet the Z87.1 standard and have compliant side shields.

Respiratory Protection:

Section 4 – Special Handling and Storage Requirements

- Use in the smallest practical quantities for the experiment being performed.
- Avoid contact with skin and eyes and inhalation.
- Containers should be labeled appropriately. Label should indicate the name of the chemical(s) in the container. Avoid using chemical abbreviations and formulae.
- Containers should be in good condition and compatible with the material.
- Keep containers tightly closed.



- Store in a cool, dry and well-ventilated area away from incompatible substances such as oxidizers, metals and alkalis. For a more comprehensive list of incompatible chemical groups, refer to www.ehs.washington.edu/resource/incompatiblechemicals-focus-sheet-176.
- Containers which are opened must be carefully resealed and kept upright to prevent leakage.
- A suitable storage location is a flammable storage cabinet or lab cabinet that does not contain incompatibles.
- Clean the fume hood upon completion of tasks with soap and water
- Clean all contaminated surfaces with soap and water, and dry.
- Place all contaminated disposable items in appropriate laboratory waste for disposal.
- Non-disposable/re-usable utensils, glassware, and other surfaces contaminated with chloroform must be decontaminated at the end of the laboratory work session. Complete this inside fume hood before removing any of the items.
- When work is completed, remove gloves and wash hands with soap and water.

Section 5 – Spill and Accident Procedures

Personnel in this lab are only allowed to clean up spills inside the fume hood of 100mL or less using absorbent. Solvent absorption pads are stored in chemical spill kit. **Do not attempt to clean up any spill if not trained or comfortable.**

Clean the spill area thoroughly with detergent solution followed by clean water.

If spill is extensive within the containment, clean all interior surfaces after completion of the spill cleanup.

Double bag all waste in plastic bags labeled with a hazardous waste label that reads "chloroform spill debris." Complete either an Online Chemical Waste Collection Request or a Chemical Collection Request Form found on the [EH&S website](http://ehs.washington.edu). Email the form to chmwaste@uw.edu

For spills outside the fume hood or larger spills, vapors generated may be above the chloroform exposure limits. Therefore, these spills may require the use of respiratory protection. Cover spill if possible to keep vapors down. Evacuate the laboratory, prevent re-entry by un-authorized personnel, and call 911 from a campus phone, or the EH&S spills line at 206-543-0467 for help. If it is after hours, call 911 for further assistance. Tell them a **chloroform** spill has occurred. If the spill is out of control, call 911. If a person is injured, exposed or suspected of being exposed, call 911.

Any spill incident requires the involved person or supervisor to complete and submit the Online Accident Reporting System (OARS) form within 24 hours ([certain types of incidents](#) require immediate notification) of the incident to EH&S. For questions on spill cleanup, contact EH&S spill consultants at 206-543-0467.

Clean up spills using contents of the laboratory spill kit: absorbent pads

Exposures: If a person is injured, exposed, or suspected of being exposed to chloroform, follow procedures listed here:



Perform first aid immediately.

- **Inhalation exposure:** Move out of contaminated area; get medical help.
- **Sharps injury** (needle stick or subcutaneous exposure): Scrub exposed area thoroughly for 15 minutes using warm water and sudsing soap.
- **Skin exposure:** Use the nearest safety shower for 15 minutes; stay under the shower and remove clothing; use a clean lab coat or spare clothing for cover-up.
- **Eye exposure:** Use the eye wash for 15 minutes while holding eyelids open.

Get Help.

- **Call 9-1-1** or go to nearest Emergency Department (ED); provide details of exposure:
 - Agent
 - Dose
 - Route of exposure
 - Time since exposure
- **Bring the SDS and this SOP** to the Emergency Department
- **Notify your supervisor** as soon as possible for assistance
- **Secure the area** before leaving; lock doors and indicate spill if needed

Report the incident to Environmental Health & Safety.

- **Notify EH&S immediately** after providing first aid and/or getting help.
 - o During business hours (M-F/8-5), call 206-543-7262.
 - o Outside of business hours, call 206-685-UWPD (8973) to be routed to EH&S Staff On Call.
- The involved person or supervisor submits the UW Online Accident Reporting System (OARS) form on the EH&S website within 24 hours ([certain types of incidents](#) require immediate notification) at oars.ehs.washington.edu.

Section 6 – Waste accumulation and disposal procedures

REQUIRED - Describe specific waste disposal procedures for all waste streams generated with chloroform. Include appropriate containment practices, storage locations, and any specific storage or handling practices. If relevant, include instructions for updating chemical inventories.

Accumulate waste at the point of generation in a sturdy, [compatible container], with a securely-closable/screw-top lid.

All chemical waste containers must be labeled with a [UW Hazardous Waste Label](#). Refer to [How to Label Chemical Waste Containers](#).



To request a collection of chemical waste, submit a form on the [Chemical Waste Disposal](#) webpage on the EH&S website or directly in [MyChem](#) inventory. Contact EH&S at 206.616.5835 or chmwaste@uw.edu with questions.

Work area decontamination procedures as appropriate for the chemical in use should be followed.

Section 7 – Process/Protocol

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

Section 8 – Special Precautions for Animal Use (☐ Yes ☒ No)

Use of **chloroform** in animals will be documented and approved by IACUC.

Describe how employees should protect themselves from contaminated animals and animal waste.

<u>PARTICULARLY HAZARDOUS SUBSTANCE INVOLVED?</u>	<u>YES:</u>	Sections #9 to #11 are Mandatory
	<u>NO:</u>	Sections #9 to #11 are Optional.

Section 9 – Approvals required

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

Section 10 – Decontamination

Section 11 – Designated area

Section 12 – Documentation of training

- Prior to using substances included in this SOP, laboratory personnel must be trained on the hazards described in this SOP, how to protect themselves from the hazards, and emergency procedures.
- Ready access to this SOP and to a Safety Data Sheet for each hazardous material described in the SOP must be made available in the lab space(s) where these substances are used.



- The Principal Investigator (PI), or Responsible Party, if the activity does not involve a PI, must ensure that their laboratory personnel have attended appropriate laboratory safety training (and refresher training where applicable).
- Training must be repeated following **any** revision to the content of this SOP.
- Training must be documented. This training sheet is provided as one option; other forms of training documentation (including electronic) are acceptable but records must be accessible and immediately available upon request.

I have read and understand the content of this SOP:

Name	Signature	Date
Sam White		09-30-2025