

Principal Investigator: Insert PI name here **Laboratory:** Insert building and lab number here

This hazard assessment encompasses chemical safety information for halogenated solvents. Users of these types of chemicals must review this document, understand the associated hazards, and the controls or processes necessary to handle them safely prior to using these chemicals in the laboratory. **NOTE: pre-approval of the Principal Investigator (PI) or Supervisor is required before purchasing or use in the laboratory.**

HALOGENATED SOLVENTS

Halogenated solvents are a class of volatile organic solvents, typically nonflammable, containing halogen atoms; bromine, chlorine, fluorine, or iodine within their molecular composition. These solvents are severe irritants and target organ toxins; affecting the central nervous system, liver, and kidneys, many are also suspected or known carcinogens. These solvents also readily penetrate latex and nitrile so those materials should not be used for work requiring full contact exposure. Common examples frequently used in our laboratories include chloroform and methylene chloride (dichloromethane).



PERSONAL PROTECTIVE EQUIPMENT



LAB COAT

Ensure your lab coat completely covers your arms and any exposed skin on your wrist



GLOVES

Reference SDS for the appropriate protective material based upon anticipated full contact or splash contact exposure



EYE PROTECTION

ANSI Z87.1 compliant safety glasses or goggles for procedures involving splash hazards

CONTAINER LABELING AND STORAGE

Halogenated solvents like all carcinogens and other particularly hazardous substances, should be stored in an adequately ventilated designated storage area that clearly identifies the hazard present with the following placard.



The designated storage area must be near the designated work area. Clearly label all containers with the appropriate words “Known Carcinogen” or “Suspected Carcinogen” Do not store these materials with other hazard classes; reactives, corrosives, or flammables. Ensure containers remain tightly sealed when not in use. Store the primary container inside of an unbreakable, sealable secondary container.

ENGINEERING CONTROLS

Fume Hood

To control the risk of exposure through inhalation when using carcinogens in the laboratory, EHS requires all work be conducted in a properly functioning chemical

fume hood with a valid annual recertification, or the utilization of another means of local exhaust ventilation.

ADMINISTRATIVE (WORK PRACTICE) CONTROLS

Use	Before beginning work with carcinogens coordinate with EHS to ensure your laboratory has been appropriately placarded. Designate a specific work area to be used for work with these materials and label this work area. Maintain records of the amounts of these chemicals stored, amounts used, dates of use, and the names of users. Never attempt to clean a large spill, evacuate the area and contact EHS. When cleaning and decontaminating the designated area, do not dry sweep powdered chemical. Upon leaving the designated area, remove PPE and thoroughly wash hands, forearms, face, and neck. Decontaminate vacuum pumps and other contaminated equipment, including glassware in the chemical fume hood before removing them from the designated area
Spill	The PI must be immediately notified of all spills in the laboratory, evacuate the lab and call EHS at (703)993-8448 for assistance from 8am to 5pm, remain onsite (at a safe distance) to provide details to the first responders. For spills after hours, or in the event of fire, evacuate the lab and contact 911 for emergency assistance.
Waste	Never dispose of hazardous waste in the laboratory sink or trash unless authorized to do so by EHS. Select a compatible container for the waste and affix a hazardous waste label with the name of the chemical(s) being accumulated to the container. In the fume hood, use a funnel or spigot to transfer the waste into the container and use secondary containment to catch spills. Keep containers tightly closed unless adding waste to the container. Open systems should be provided with a sealed waste container. Do not fill waste containers to greater than 90% capacity. Whenever possible collect non-halogenated waste in a separate container from halogenated waste.

FIRST AID AND EMERGENCIES

Skin or Eye Contact	Remove contaminated clothing or PPE; flush the affected area with water for 15 minutes. Seek emergency medical attention immediately
Inhalation	Move to fresh air, seek emergency medical attention immediately
Ingestion	Rinse mouth with water, seek emergency medical attention immediately

Initial below to acknowledge that you have read and understood this document and the associated hazards and controls necessary for the safe use of these types of chemicals in this laboratory.

Name	Initials	PI or Supervisor Initials	Date