

Principal Investigator: _____




Date Approved: _____

This document covers basic chemical safety information for acutely toxic chlorinated solvents. The use of any acutely toxic chemical is subject to pre-approval by the Principal Investigator (PI) and/or Supervisor. PI and/or Supervisor may use the sheet attached to this SOP to document any lab specific training for Acutely Toxic Chlorinated Solvents. **DO NOT USE ACUTELY TOXIC CHLORINATED SOLVENTS UNTIL YOU HAVE OBTAINED THE NECESSARY PRE-APPROVAL.**

Acutely Toxic Chlorinated Solvents

Chlorinated solvents are liquids containing chlorine atoms and are often volatile and carcinogenic. The chlorinated solvents covered by this SOP are also acutely toxic by inhalation. Like other halogenated solvents, they have the ability to penetrate disposable latex and nitrile gloves. This is particularly noteworthy in the case of 2-chloroethyl ether and 2-chloroacrylonitrile, which are acutely toxic by dermal exposure.



Personal Protective Equipment & Personnel Monitoring		
 Lab Coat	 Gloves	 Eye Protection
Traditional white lab coat or flame-resistant lab coat when working with flammable materials. An apron may be required when handling large quantities or for operations with a significant spill risk.	Two pairs of nitrile or neoprene gloves, when the glove is chemically exposed, the outer glove must be removed and replaced immediately. Alternatively, butyl rubber gloves may be used.	ANSI Z87.1-compliant safety glasses or safety goggles if a splash hazard is present.

Labeling & Storage

Store away from other materials that are not particularly hazardous or which may be chemically incompatible. Primary containers should be labeled according to the UNC Charlotte Chemical Hygiene Plan. Containers of acutely toxic chlorinated solvents must be stored in leak-proof secondary containment within a Designated Area. The secondary container's label must contain the chemical name and corresponding hazards. Also, if not plainly visible (e.g. through a cabinet window), labelling must be applied to storage locations where these are stored to avoid an inadvertent encounter.

Engineering Controls, Equipment & Materials

Fume Hood

It is advisable to use a fume hood when working with materials which are toxic by inhalation. If your protocol does not permit the handling of such materials in a fume hood, contact EHS to determine whether additional respiratory protection is warranted.

Housekeeping

Spills

Notify others in the area of the spill, including your supervisor. Evacuate the location where the spill occurred. Call 911 from any campus phone (or 704-687-2200 from a cell phone). Report any exposure to EHS at 704-687-1111. Remain on-site (at a safe distance) to provide detailed information to first responders.

Decontamination

Decontamination methods will vary based on the materials handled and equipment being used. Please review the chemical Safety Data Sheet for guidance on cleaning materials.

Waste

Refer to the UNC Charlotte Chemical Hygiene Plan for details.

First Aid & Emergencies

Skin Contact

Immediately remove contaminated clothing and shoes; flush skin with water for at least 15 minutes. Get medical attention immediately.

Eye Contact

Check for and remove contact lenses. Immediately flush eyes with water for at least 15 minutes. Get medical attention immediately.

Inhalation

Move person into fresh air. If symptoms persist, get medical attention immediately.

Ingestion

Get medical attention immediately.

Name	Signature	Date