

Principal Investigator: _____

Date Approved: _____




This document covers basic chemical safety information for corrosive flammables. The use of any corrosive, flammable 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 Corrosive Flammables. **DO NOT USE CORROSIVE FLAMMABLES UNTIL YOU HAVE OBTAINED THE NECESSARY PRE-APPROVAL.**

Corrosive Flammables

Corrosive flammables are materials that can cause destruction of exposed tissues and are defined by the National Fire Protection Agency (NFPA) as having a flashpoint below 100°F (37.8°C). Examples include: acetic acid, triethylamine, N,N,N',N'-tetramethylethylenediamine (TEMED), n-butanol, and n-propanol.



For more information on each individual hazard type, please refer to the respective 'single hazard' SOP.

Personal Protective Equipment & Personnel Monitoring		
 Lab Coat	 Gloves	 Eye Protection
Flame resistant lab coat and a chemical-resistant lab apron.	Nitrile or neoprene gloves. Consult glove selection chart for heavy handling of corrosives. DO NOT WEAR LATEX GLOVES	ANSI Z87.1-compliant safety glasses or safety goggles, or face shield if a splash hazard is present.

Labeling & Storage

Corrosive flammables should be stored in a flammable storage cabinet with self-closing hinges or in a refrigerator rated for flammable storage. Any container greater than 1 gallon (4L) in size must be stored in a flammable storage cabinet. The maximum amount of flammables allowed outside a flammable storage cabinet, safety can, or approved refrigerator is 10 gallons. Keep away from oxidizers, incompatible corrosives (e.g. segregate acids and bases), and combustible materials. Primary containers should be labeled according to the UNC Charlotte Chemical Hygiene Plan. The secondary container's label must contain the chemical name and corresponding hazards. Always store strong and/or concentrated acids and bases in chemically-resistant secondary containers (e.g. polypropylene trays or tubs). Containers holding corrosives must be stored below eye level. Also, if not plainly visible (e.g. through a cabinet window), labeling 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 these materials. 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.

Cautions & Considerations

Large containers of flammable chemicals should always be grounded, and should be bonded to the receiving container during transfer. Always transfer flammable chemicals from glass containers to glassware or from glass container/glassware to plastic. Transferring these types of chemicals between plastic containers or unbonded metal containers may lead to a fire hazard due to static electricity.

Housekeeping

Spills

Keep acid and/or base neutralizer in your spill kit to use or provide to EHS during spill cleanup. Notify others in the area of the spill, including your supervisor. Refer to the UNC Charlotte Chemical Hygiene Plan for specific spill procedures if the volume is small or incidental and there is no inhalation hazard. For major spills, 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 or Eye Contact

Remove contaminated clothing and accessories; flush affected area with water. If symptoms persist, get medical attention.

Inhalation

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

Ingestion

Rinse mouth with water. If symptoms persist, get medical attention.

