Principal Investigator: _____ ***Date Approved:*** _____

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

Flammables

A flammable solvent is defined by the National Fire Protection Agency (NFPA) as having a flashpoint below 100°F (37.8°C). The flashpoint is the lowest temperature at which a material can form an ignitable mixture with air and produce a flame when an ignition source is present. The lower the flashpoint, the more easily the liquid can be ignited.

Hazard Classification for Flammable Liquids			
Class	**Flash point**	**Boiling point**	**Examples**
I-A	Below 73°F (23°C)	Below 100°F (38°C)	diethyl ether, pentane
I-B	Below 73°F (23°C)	At or above 100°F (38°C)	acetone, benzene, cyclohexane, ethanol
I-C	73-100°F (24-38°C)	----	p-xylene

Personal Protective Equipment & Personnel Monitoring		
 **Lab Coat**	 **Gloves**	 **Eye Protection**
Traditional lab coat or flame-resistant lab coat when working with flammable materials	Nitrile or neoprene gloves typically provide adequate protection against minor splashes. Consult with your PI or supervisor to determine whether any materials involved in your process require alternative hand protection.	ANSI Z87.1-compliant safety glasses or safety goggles if a splash hazard is present

Engineering Controls, Equipment & Materials

Fume Hood

If your protocol does not permit the handing of such materials in a fume hood, contact EHS to determine whether alternative engineering controls or additional respiratory protection is warranted.

Flammables

Labeling & Storage

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. All flammables must be stored away from combustible materials, oxidizing acids and oxidizers. 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. 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.

Cautions & Considerations

Static Electricity

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

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

Fire

DO NOT use water to put out fire, instead use a Class B or ABC fire extinguisher.

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.

Name	Signature	Date