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

This document covers basic chemical safety information for acutely toxic potentially explosives. The use of any acutely toxic potentially explosive 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 Potentially Explosive Chemicals. DO NOT USE ACUTELY TOXIC POTENTIAL EXPLOSIVES UNTIL YOU HAVE OBTAINED THE NECESSARY PRE-APPROVAL.

Acutely Toxic Potentially Explosive Chemicals

Acutely Toxic Potentially Explosive Chemicals are materials that can be fatal in small doses and can also undergo a sudden release of pressure, gas, and heat when subjected to an initiating mechanism such as friction, impact, catalysts, light, or heat. Examples include **dipicrylamine** and **hydrazoic acid**.

Chemicals covered by this SOP do not include acutely toxic peroxide-forming chemicals because peroxide formers and potential explosives are two different hazard classes.

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. Consider using a blast shield for extra protection.

Labeling & Storage

Store in secondary containment at the manufacturer's recommended temperature in an explosion-proof refrigerator/freezer or an explosion-proof cabinet that does not contain flammables or chemically incompatible materials. Keep away from heat, light, and any potential initiating mechanisms. Primary containers should be labeled according to the UNC Charlotte Chemical Hygiene Plan. Containers of acute toxicants 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), labeling must be applied to storage locations where these are stored to avoid an inadvertent encounter.

Engineering Controls, Equipment & Materials

Fume Hood

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

Blast Shield

When working with potentially explosive chemicals the use of a portable blast shield inside the fume hood is highly recommended.

Cautions and Considerations

Initiating Mechanism

Before working with any potentially explosive chemicals, determine the initiating mechanism that could lead to an explosion; friction, impact, catalysts, light, or heat. Refer to the chemical SDS for this information. Also consider working with equipment that cannot generate static electricity or sparks.

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. Please note that some carcinogens and acute toxicants may be considered “acutely hazardous’ when disposed as waste.

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