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

This document covers basic chemical safety information for corrosive water reactives. The use of any corrosive, water reactive 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 Water Reactives. DO NOT USE CORROSIVE WATER REACTIVES UNTIL YOU HAVE OBTAINED THE NECESSARY PRE-APPROVAL.

Corrosive Water Reactives

Water reactive materials are chemicals that may react violently with an aqueous solutions or atmospheric moisture to produce a flammable or toxic gas and heat. Some of these materials will react with water in living tissues to produce hydroxide ions capable of causing permanent damage. Substances with these characteristics are considered corrosive water reactives. Examples include Grignard reagents, alkali metals and their hydrides, and boron trifluoride reagents.

This SOP excludes potassium metal and pyrophoric chemicals

Personal Protective Equipment & Personnel Monitoring		
 **Lab Coat**	 **Gloves**	 **Eye Protection**
Wear a 100% cotton lab coat. If your protocol also involves flammable materials, wear a lab apron over a flame-resistant lab coat.	Neoprene gloves are recommended. **DO NOT WEAR LATEX GLOVES**	ANSI Z87.1-compliant safety glasses, or safety goggles and a face shield if a splash hazard is present.

Labeling & Storage

Keep containers upright & tightly closed in a dry, well-ventilated place below eye level. 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. Store in secondary containment away from moisture/humidity, heat sources, aqueous solutions, and any other materials that may be chemically incompatible. 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

Glove Box

Handling of these materials in a glove box with a dry, inert, positive pressure atmosphere is recommended.

Fume Hood

Work in a chemical fume hood away from any water sources. If your protocol does not permit the handing of such materials in a fume hood, please contact EHS for further guidance.

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

Rinse work surfaces with isopropyl alcohol prior to washing with soap and water.

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 in a safety shower 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. Get medical attention immediately.

Ingestion

Get medical attention immediately.

Name	Signature	Date