

Principal Investigator: \_\_\_\_\_

Date Approved: \_\_\_\_\_

**This document covers basic chemical safety information for acutely toxic oxidizers and supplements the laboratory Chemical Hygiene Plan as appropriate. The use of any acutely toxic oxidizing chemical is subject to pre-approval by the Principal Investigator (PI) and/or designated Laboratory Responsible Safety Person. DO NOT USE ACUTELY TOXIC OXIDIZERS UNTIL YOU HAVE OBTAINED THE NECESSARY PRE-APPROVAL.**

## Acutely Toxic Oxidizers

Oxidizers are liquid or solid materials that promote combustion. They may spontaneously give off oxygen at room temperature or with slight heating. Strong oxidizers are capable of forming explosive mixtures when mixed with combustible, organic or easily oxidized materials. Oxidizers which may be fatal if ingested, inhaled, or absorbed through the skin are also acutely toxic.



## Personal Protective Equipment & Personnel Monitoring

**Lab Coat**

Wear a 100% cotton or flame-resistant lab coat. If your protocol also involves flammable or combustible materials, a flame-resistant lab coat is required.

**Gloves**

For proper glove selection, review chemical Safety Data Sheet and consult glove manufacturer recommendations with your PI or supervisor.

**Eye Protection**

ANSI Z87.1-compliant safety glasses or safety goggles if a splash hazard is present.

## Labeling & Storage

Store in secondary containment away from organic, flammable, reducing agents and any other materials that may be chemically incompatible. **Do not** store acutely toxic oxidizers in untreated wooden cabinets. Each container's label must include appropriate pictograms and identify the material as both oxidizing and acutely toxic. Containers must be stored in leak-proof secondary containment within a Designated Area. The secondary container's label must have appropriate pictograms and identify the material as both oxidizing and acutely toxic. 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

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 the Department of Environmental Health, Safety and Sustainability (EHSS) to determine whether additional respiratory protection is warranted.

## Housekeeping

### Spills

Notify others in the area of the spill, including your PI/Responsible Safety Person. If it is a small spill that you can easily handle, use the contents of your lab spill kit to clean it up. If it is a large spill, then evacuate the area where the spill occurred. Call Vanderbilt University Public Safety (VUPS) at 615-421-1911 or use the VandySafe app

on your smart phone. Report any exposure through Risk and Insurance Management's Origami portal and mark that it occurred in research when prompted. Both VUPS and the Origami system will notify EHSS of the incident. Remain on site at a safe distance to provide detailed information to first responders.

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**Decontamination**

Soap and water are typically adequate for routine decontamination of areas where acutely toxic oxidizers are handled. Please review the chemical Safety Data Sheet for guidance on cleaning materials.

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**Waste**

Refer to the laboratory *Chemical Hygiene Plan* (Section 6.7) for information on proper chemical waste disposal procedures.

### 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. Get medical attention immediately.

**Ingestion**

Get medical attention immediately.

Name	Signature	Date