VANDERBILT UNIVERSITY

Principal Investigator: Date Approved:

**This document covers basic chemical safety information for corrosive carcinogens and reproductive toxicants and supplements the laboratory Chemical Hygiene Plan as appropriate. Additional lab-specific safety operating procedures for the use of any corrosive carcinogen or reproductive toxicants are subject to pre-approval by the Principal Investigator (PI) and/or designated Laboratory Responsible Safety Person. DO NOT USE CORROSIVE CARCINOGENS OR REPRODUCTIVE TOXICANTS UNTIL YOU HAVE OBTAINED THE NECESSARY PRE-APPROVAL.**

# Corrosive Carcinogens and Reproductive Toxicants

**Corrosive carcinogens** are materials that can cause destruction of exposed tissues and have the potential to cause cancer as the result of prolonged or repeated exposures.

**Corrosive reproductive toxicants** are materials that can cause destruction of exposed tissues and have the potential to interfere with fertility, fetal development, and/or lactation as the result of prolonged or repeated exposures.

**Corrosive mutagens** are materials that can cause destruction of exposed tissues and can cause genetic mutations as the result of exposures. Such mutations can often lead to cancer or reproductive toxicity.

These materials may be more-readily internalized due to their ability to compromise the skin through corrosive damage.

## Personal Protective Equipment & Personnel Monitoring

**Lab Coat**

Traditional lab coat.

**Gloves**

Nitrile or chloroprene gloves. Consult glove selection chart for heavy handling of corrosives.

**Eye Protection**

ANSI Z87.1-compliant safety goggles, or face shield if a splash hazard is present.

**Do not wear latex gloves.**

## Labeling & Storage

Store containers upright & tightly closed in a dry and well-ventilated place. Keep away from incompatible materials (e.g., segregate acids and bases). Always store strong acids and bases in a chemically-resistant secondary container (e.g., a polypropylene tray or tub). Containers holding corrosives need to be stored below eye level. Apply labeling to identify hazards on the bottles, secondary containers, and external location.

## Engineering Controls, Equipment & Materials

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| **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

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| **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. |
| **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 laboratory *Chemical Hygiene Plan* (Section 6.7) for information on proper chemical waste disposal procedures:<br>Please note that some carcinogens may be considered Extremely Hazardous when disposed of as waste. |

## First Aid & Emergencies

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| **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. |

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