Art Safety & Hazardous Materials Guide

School of the Museum of Fine Arts at Tufts
A guide for Faculty, Staff, and Students

Work in Progress: those interested in contributing artwork or images to future versions of this guide, please contact the EHS Office.

Tufts University
Environmental Health and Safety
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Emergency Contacts

In the event of a personal threat, attack, medical emergency, fire, chemical spill, or any other emergency situation contact Tufts Police at 617-627-6911.

Contacting the Security Officer on duty will only delay the response to your emergency.

To make a NON-emergency call to the Tufts University Communications Center and Tufts Police, dial 617-627-3030.

Please review the Tufts University Emergency Response Guide available online or in print. http://emergency.tufts.edu/guide/
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1.0 Introduction

1.1 School of the Museum of Fine Arts at Tufts – Safety and Environment

Policy

It is the goal of the School of the Museum of Fine Arts at Tufts (SMFA) and its staff to ensure that our educational programs and other activities protect and promote the health, safety and healthful environment of our students, faculty, staff, and visitors to the campus.

To achieve this goal, the School is committed to complying with applicable safety and environmental regulations, and SMFA policies and standards. SMFA will strive to protect and enhance the environment through pursuing environmental sustainability initiatives. At SMFA, we will take adequate time and the necessary measures to perform that function safely and in an environmentally responsible manner.

The ultimate responsibility for safety and environmental compliance at the SMFA rests with the Dean and with the Director of Facilities. They are committed to ensuring that safety and environmental sustainability are given the proper level of importance and appropriate support. The content of this Guide and responding to all requests for technical advice and guidance in the areas of safety and environmental protection has been assigned to the TU Campus EHS Manager. Implementation of the safety and environmental policies, guidelines, and operating procedures are achieved by the faculty and staff of the departments of the SMFA. The TU Campus EHS Manager works in a collaborative effort with administration, faculty, and staff by providing program oversight, advisory services, and specific resources that support the mission of the SMFA through the achievement of a safe, healthful, and sustainable campus environment.

The overall success of the safety and environmental programs depends upon the conscientious and collaborative efforts of administration, faculty, staff, and students.

Adopting practices and taking actions required by safety and environmental policies in the performance of their work and study is the first priority of every member of the campus community. To emphasize the importance of this program, safety and environmental compliance must be included in every employee and faculty evaluation and academic program. Failure to follow or enforce safety and environmental policies may result in regulatory
noncompliance for the SMFA and result in issues that will need to be attended to internally; and, depending on the issue, reported to outside regulatory agencies.

It is imperative that all faculty, staff, and students actively promote and support this policy by observing applicable rules and continuously improving their safety and environmental knowledge, skills, and attitudes by taking advantage of available training resources. Faculty, staff, and students are encouraged to report all unsafe actions, equipment, and conditions to their Supervisor, EHS Campus Manager, or Department Head.

1.2 Scope of Art Safety and Hazardous Materials Guide

The School of the Museum of Fine Arts (SMFA at Tufts) is dedicated to protecting the health and safety of faculty, staff, and students through compliance with applicable State and Federal regulations.

The Occupational Safety and Health Administration (OSHA) promulgated the regulation, 29 CFR 1910 that contains many requirements for assuring a safe workplace and for conducting work activities safely.

All employees and students should be aware of the 10 basic factors leading to a safe workplace that apply to all areas of the School:

- Fire safety and emergency planning;
- Electrical safety;
- Walking and working surfaces such as floors, stairs, and ladders;
- Hazardous materials-OSHA 1910.1200 chemical hazard communication;
- Noise;
- Materials handling and storage;
- Communicable disease control through sanitation, personal hygiene, and compliance with the Tufts Exposure Control Plan for Bloodborne Pathogens;
- Design of workstations such as desks, chairs, and benches to minimize repetitive strain injuries and back pain;
- First aid (emergency eye wash stations); and
- Medical surveillance

Shops and studios contain equipment such as electrical, woodworking equipment and welding equipment which have specific requirements. Section 1910.1200 Hazard Communication requires that employers and employees know about chemical hazards and how to protect themselves against those
hazards. All chemicals brought into the SMFA at Tufts must be approved by designated faculty or staff and the name added to the chemical inventory for each shop and studio.

Although not traditionally viewed as a hazardous occupation, the artist-in-training will encounter many of the same hazardous materials, equipment and conditions that are found in manufacturing including solvents, dusts, fumes, mists, gases, vapors, dyes, and a variety of physical hazards including machinery with moving parts, noise, sharp objects, and extreme heat.

The key to safe and appropriate work practices in the art classroom and studio is to identify the hazards that may be encountered and learn how to protect oneself and the environment from harm. This information must be obtained before starting any activity instead of waiting for an incident, or worse an emergency to occur. Faculty, staff, and students must be familiar with proper work practices, personal protective equipment, and must follow applicable safety and environmental guidelines. Finally faculty, staff, and students need to be aware of their surroundings when in the work area to help prevent any potential harmful or dangerous situations.

1.3 This Guide Applies to All

This Safety and Hazardous Materials Guide applies to all persons and areas within the SMFA at Tufts facilities where there are both normal and high hazard operations, hazardous chemicals/materials in use, or where hazardous wastes are generated and handled. The SMFA requires that each department, shop and studio develop and implement a specific safety and hazardous materials program to control the exposure to hazardous materials, equipment, and situations. All Supervisors and Shop and Studio managers are responsible for informing staff and students about the specific hazards they may encounter and measures required to prevent injuries, disease, and death within their specific area such as Ceramics, Welding, Small Metals, Woodworking, and other Shops and Studios.
2.0 Roles and Responsibilities

2.1 SMFA Dean’s Office

- Establish safety and environmental compliance as an institutional priority.

- Provide adequate financial and organizational support for safety and environmental compliance at SMFA.

- Include safety, hazardous material handling, and storage and disposal considerations in long-range facilities planning.

- Define and implement the SMFA safety and environmental policy and ensure that it is documented, implemented, and maintained, and communicated to faculty, staff, and students.

2.2 SMFA at Tufts Health and Safety Committee

- The Dean and the Director of Administrative Services appoints the Safety and Hazardous Materials Committee to include faculty, staff, and student representatives.

- Periodically review the Art Safety and Hazardous Materials Guide and associated program to ensure its continuing suitability, adequacy, and effectiveness.

- Support the Supervisors and Shop and Studio Managers in implementation of art safety policy and procedures including mandatory training and demonstration of competence before handling hazardous materials, equipment and processes.

- Promote the safe use of resources and facilities at the SMFA.

- Be a catalyst for Supervisors and Shop and Studio Managers to implement and maintain specific work area procedures, guidelines, and policies. Through collaboration, take ownership of site-wide EHS issues.

- Establish internal penalties for faculty, staff, and students that consistently do not follow, or refuse to follow, accepted safety and environmental procedures.

- Review reports of incidents and accidents. Escalate (as appropriate) to the Dean’s Office.
2.3 **Campus EHS Manager**

- Prepare, implement, and maintain the Art Safety and Hazardous Materials Guide including policies and procedures adopted.

- Assist Supervisors and Shop and Studio Managers in protecting staff and students from harm arising from hazardous material, equipment, and practices.

- Provide faculty, staff, and students with initial safety and hazardous materials training and assist managers with developing their training programs.

- Assist personnel in locating and obtaining Safety Data Sheets for all to update inventories at least annually.

- Provide oversight and direction for proper hazardous chemical/materials management and waste handling and disposal practices.

- Provide monitoring services for anticipated or suspected exposures for use in determining proper protective measures.

- Perform periodic scheduled and unscheduled safety audits and inspections.

- Perform inspections of fume hoods and other local exhaust devices periodically, and provide necessary maintenance for proper functioning.

- Arrange for appropriate routine medical surveillance as required by OSHA regulation for specific hazardous chemicals.

- Coordinate/leverage resources from the Tufts EHS Office to assist with the above.

2.4 **Supervisors and Shop and Studio Managers**

- Maintain an up-to-date copy of the Art Safety and Hazardous Materials Guide and ensure that faculty, staff, and students comply with the general and Shop and Studio policies, rules, and procedures.

- Create and maintain appropriate area-specific procedures and guidelines and Standard Operating Procedures (SOPs) to supplement the general provisions provided in this Guide.
• Attend all EHS-sponsored training. Train or arrange for training of students and staff initially at the beginning of each semester and, as needed when new materials, equipment, tools, or procedures or hazards are introduced.

• Maintain records of training and make available to the EHS Campus Manager upon request.
  Note: EHS Campus Manager is available to assist with training or providing training materials.

• Implement and enforce the use of safety and waste management procedures including necessary personal protective equipment, engineering controls, or work practices.

• Ensure that the areas where hazardous materials are used or stored are secured when not in use.

• Ensure that all chemical and waste containers used or stored in the area are properly labeled.

• Maintain current material and waste inventories and emergency contact list and forward updated information to EHS Campus Manager at least annually or when there are changes.

• Assure that periodic inspections are conducted using self-inspection worksheets as a guide.

• Provide necessary personal protective equipment.

Note: Respirators, if used, must comply with requirements of the Tufts Respiratory Protection Policy (see Appendix B). Notify the EHS Campus Manager before issuing or using respiratory protection for proper training and guidance.
  Note: Use of respirators requires a medical evaluation prior to use and must be approved by the Supervisor, Shop or Studio Manager, and the EHS Campus Manager.

• Ensure that engineering controls such as fume hoods and local exhaust ventilation systems are functioning properly, and if not, contact the Director of Facilities or the Campus EHS Manager for appropriate maintenance or repairs and suspend all activities until repairs are made.

• If carcinogens, reproductive toxins, or acutely toxic chemicals (refer to SDS, e.g., lead, chromium, and other metals in dust or vapor form) are used in
the work area, post one or more "designated use areas" for controlled high hazardous material use.

- Ensure the availability of Safety Data Sheets and relevant reference materials.
- Manage and dispose of hazardous material waste properly.
- Post near telephones current emergency contact information, and also post the Tufts Emergency Response Guide in a highly visible location near the exit door.
- Include safety compliance in staff job description for annual performance review, and as part of student performance evaluation.

2.5 Students

- Read the Art Safety and Hazardous Materials Guide as well as specific guidelines and policies and associated Shop and Studio Standard Operating Procedures (SOPs); ask questions of Supervisors, Shop and Studio Managers before operating new and unfamiliar equipment, handling new and unfamiliar materials, or conducting new and unfamiliar processes.

Students will acquire competence through supervised training and supervised practice. Competence will be determined by Supervisors, Shop and Studio Managers.

- Use ONLY chemicals/supplies from the Shop or Studio approved inventory list (Do not bring chemicals into the SMFA without approval by Supervisor, Shop and Studio Manager, or their designee).

- Know where Safety Data Sheets are located in the work area and become knowledgeable of the potential hazards associated with the material that you are working with and the protective equipment or handling procedures needed to minimize your exposure.

- Immediately label all secondary containers with the chemical constituents, hazard warning (e.g., toxic, flammable, etc.), and date.

- Report all exposure incidents or hazardous conditions to a faculty member or instructor.
• Request information or instruction when unsure about how to handle a hazardous chemical/material or procedure.

• Inform your instructor of any identified hazard or potential hazard.

• Perform only authorized work, preparations, and activities in the work area; and

• Manage (handle) and dispose of hazardous material waste properly.

2.6 Visitors and Contractors

• Shall follow all safety rules and procedures while on site.

3.0 Training

3.1 Art Safety & Hazardous Materials Training

3.1.1 Applicability

• Individuals who work with hazardous equipment, processes, or chemicals have the right and responsibility to know about the hazards that the equipment, processes, and chemicals pose, and how to work with them in a safe manner which minimizes the risk of accidents. In order to accomplish this, each individual must:

  o Participate in training provided by the School or each Supervisor or Shop or Studio Manager;
  o Maintain proper labeling of chemical containers.
  o Review SDSs for hazardous chemicals before working with them.
  o Follow instructions and recommended procedures when using hazardous materials.
  o Use appropriate protective equipment, as necessary.
  o Report potentially hazardous conditions to supervisors.

3.1.2 Content

• All individuals who work with hazardous materials must participate in Hazard Communication training. Training is provided to the faculty and staff, and covers the provisions of the federal OSHA Hazard Communication regulation, including:

  o Identification of hazardous materials and wastes,
  o methods to recognize hazards,
• hazard evaluation,
• interpreting Safety Data Sheets,
• common methods to prevent and control chemical exposure,
• the use and function of personal protective equipment, and
• general procedures for spill clean-up and hazardous waste management.

3.1.3 Safety and Environmental Information

• Safety Data Sheets (SDS) detailing chemical or mixture-specific physical and hazard assessment information must be available in each work area.

3.2 Shop Studio Training

Supervisor and Shop or Studio Manager will provide area specific introductory training as material compliance will be included in evaluation of student work. Training will include (at a minimum):

• Initial Safety Orientation Training will be provided to all new and transferred SMFA employees and held at the beginning of each semester. The EHS Office provides this training.

• Additional training sessions can be scheduled for groups upon request to the Supervisor, Shop and Studio Manager.

• Shop and Studio Managers/Supervisors shall provide students and new employees with training on shop or studio-specific safe work practices and procedures at the start of each semester. This also includes any time during the semester when new equipment, processes or chemicals are introduced.

• Location of emergency equipment such as eyewash stations, fire extinguishers, fire pull stations, safety showers, etc.;

• How to locate and use personal protective equipment in the work area;

• Exits and evacuation routes;

• Hazardous material handling, storage and waste disposal procedures;
• Location of designated areas for use of hazardous materials (especially carcinogens, reproductive toxins, or acutely toxic substances);

• Location, access, and instructions for using the:
  o Hazardous material/chemical and waste inventories;
  o Art Safety and Hazardous Materials Guide;
  o Safety Data Sheets; and
  o Shop and Studio-specific standard operating procedures.

• A record of area-specific training, including the students and faculty signature of the agreement to acceptance area guidelines and policies shall be maintained in each area. A copy of all training records shall be made available to the EHS Campus Manager upon request.

4.0 Standard Operating Procedures

4.1 Personal Protection

Faculty, staff, and students are required to use personal protective equipment (PPE) where appropriate. The Supervisor and Shop and Studio Manager will identify protective equipment required for students in specific work areas. The Tufts University Personnel Protective Equipment (PPE) Plan can be viewed by going to the EHS Office website. See Appendix B.

4.1.1 Eye Protection

• All people, who are exposed to eye or face hazards from flying particles, molten metal, liquid chemicals, acids or caustics chemicals, chemical gases or vapors or potentially injurious light/radiation in work areas or studios, including visitors, must wear appropriate American National Standards Institute (ANSI) approved eye protection at all times. Standard prescription eyeglasses are not sufficient;

• Face shields and/or standing guards must be available where face or neck protection is required. Safety glasses or safety goggles must also be worn when face shields are required.

4.1.2 Protective Clothing
• No bare feet are allowed in the work areas. Students may in some instances be required to wear closed toed shoes made of a non-woven material with non-slip soles;

• Where appropriate, students should wear clothing that covers exposed arms and legs;

• Wearing of natural fibers (cotton or wool) is recommended. Synthetics (rayon, polyester) are flammable;

• Launder clothing worn in the work area separately from personal laundry;

• Nonflammable, nonporous aprons must be available where corrosive liquid chemicals are used.

4.1.3 Respiratory Protection

• Respirators should not be used where dilution, fume hood, or local ventilation can be used to control exposure to airborne hazardous materials. Always contact the EHS Office for assistance.

• No respirator may be used or stored in a work area until the intended user has completed the requirements of the Tufts Respiratory Protection Plan including medical clearance, fit testing, and training and approved by Supervisor, Shop and Studio Manager, and EHS Campus Manager.

4.1.4 Gloves

• Use a glove that is compatible (refer to appropriate SDS) with the material(s) in use;

• Remove gloves before leaving the work area or handling uncontaminated items (e.g. a doorknob or telephone receiver);

• Wash hands immediately after removing gloves;

• Clean or discard gloves immediately after use (consistent with use and contamination);

• Inspect gloves to assure the absence of wear, cracks or discoloration before use; and
• Limit the use of latex examination gloves in chemical use areas.

4.1.5 Personal Hygiene

• Do not smoke, use, or store tobacco products in the work area;
• Do not prepare, store, or consume food or beverages in the work area;
• Do not apply cosmetics in the work area;
• Do not use deionized water for personal consumption;
• Wash hands and arms thoroughly before leaving the work area, even if gloves have been worn;
• Long hair and loose clothing must be constrained.

4.2 Work Practices

4.2.1 Hazardous Materials, Waste Inventories, and SDS

• All areas are required to maintain a written inventory and an SDS for each hazardous material stored or used in the work area. Update the inventory when changes are made. Submit to the EHS Office upon request.

• Inventories and SDSs must be accessible to all affected personnel whenever they are in the work area;

• Students may only use or be supplied materials that are approved by the instructor and are included on approved area’s material inventory list;

• Minimize inventories to include only necessary hazardous materials quantities; and

• Substitute hazardous materials with less hazardous materials when possible.

4.2.2 Hazardous Material Labeling

• Manufacturers’ labels must be maintained on all incoming hazardous materials and art supply containers;
Torn or defaced labels must be replaced immediately. Any style of label that maintains the identity of the hazardous materials, appropriate hazard warnings, expiration date (if applicable), and name and address of the manufacturer or importer may be used;

Secondary containers must be immediately labeled with the name of the material, hazard warning, date; and

All small “working containers; i.e., small containers of hazardous materials to be used during the working session (day) must be labeled with the chemical name and hazard warning (e.g., flammable, toxic). Containers must be closed or covered when not in use.

4.2.3 Handling and Transport of Hazardous Chemicals/Materials

Cap and tightly close all containers before transporting;

Transport hazardous materials within a tightly sealed chemically resistant container inside of a chemically resistant secondary container or pan that can contain any spill or leak;

Use freight elevators for hazardous material transport where available; and

Ground all metal containers when dispensing flammable liquids. Flammable liquids should be transferred to glass containers.

All over-the-road transport of hazardous materials must be reviewed by the EHS Office before-hand.

4.2.4 Hazardous Chemicals/Materials Storage

Minimize the quantity of hazardous material stored in the work area;

Hazardous materials should only be stored in their original containers. If this is not possible, only approved containers compatible with the materials may be used for hazardous material storage;

Properly discard or recycle chemicals that have not been used in the past three years (notify maintenance for large quantity or hazardous materials disposal);
• Store chemicals in proper compatibility groups;

• All flammable liquids must be stored in a flammable storage cabinet;

• Store all chemicals as low as possible. Store corrosives and liquids below eye level (4 to 4.5 feet).

• Chemicals should be stored in closed cabinets. If open shelving must be used, they must be secured to the wall. Each shelf must have a minimum ¾ inch lip.

4.2.5 Housekeeping

• Keep work areas clean and free from debris and contamination. Each work area should be cleaned at the end of each workday or session by students, faculty, or staff responsible for the area;

• Maintain minimal equipment on working surfaces;

• Maintain clear exits and aisles; and

• Keep storage items out of hallways and stairwells.

4.2.6 Compressed Gas

All compressed gas cylinders:

• Must be installed and leak tested by personnel who are trained to connect the cylinder properly;

• Must be secured in an upright position at all times;

• Must be capped when not in use; turn off tank valves.

• Must be fully labeled including cylinder content; and

• Must be used with a compatible regulator and other auxiliary equipment. Assure all threads match those on the cylinder valve outlet.

• A Compressed gas checklist is available; see Appendix B.
4.2.7 Equipment

• Equipment must be maintained in a state of good repair. Maintenance must be performed in accordance with manufacturer recommendations;

• When equipment malfunctions or is damaged it must be locked and tagged out and taken out of service until it is repaired by a qualified technician;

• New equipment purchases and installations shall be reviewed with the TEHS Office. Contact the Campus EHS Manager.

• Prior to operating equipment, all individuals (students and staff) must be trained in the proper operation of the equipment including safety control devices designed to operate in conjunction with the equipment (i.e. machine guards or local exhaust ventilation, as appropriate);

• Use equipment only for intended purpose; and

• Required machine guards must be in place prior to equipment operation and should not be removed except to perform equipment maintenance/adjustments

4.3 Personal Safety

4.3.1 Work Area Access

• No children should be present in any work area where hazardous materials are stored or used;

• Area staff or student must accompany visitors to the work areas at all times; and

• Doors to studios and shops shall be kept closed at all times.

• No one should work alone. If circumstances require working alone, the Supervisor or Shop and Studio Manager must be notified, and arrangements made to assure the individual’s safety.

4.3.2 Unattended Activities/ Operations

Operations should not be allowed to run unattended without:

• Review and approval by Manager;
• A fail-safe provision;

• Emergency instructions and contact information for the individual most familiar with the operation posted outside of the door; and

• Work area lights left on.

4.3.3 Eyewash Stations

• Where eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body must be provided within the work area for immediate emergency use. [OSHA 40 CFR 1910,151(c)].

• Eyewash stations need to be located no more than 10 seconds (or less than 25 feet) away from the hazard area, and where strong acid or caustic is used, the station should be immediately adjacent to the hazard area.

• Eye wash stations should contain enough water to provide for 15 minutes of continuous use.

• Use should be followed by appropriate medical treatment;

• Should be run/tested inspected frequently by Shop/Studio Managers to ensure proper function and minimize bacterial contamination.

• Safety Showers shall be tested periodically by Facilities Services.

4.3.4 Fire Extinguishers

• All uses of fire extinguishers shall be reported to Facilities Services to assure extinguishers are full when needed;

• Only individuals who have completed fire extinguisher training and are comfortable that they can safely attack an incipient (early stage/small) fire should try to use extinguishers. Otherwise, evacuate the area, notify others in the area, close the door, and pull the fire alarm.
4.4 Work Area Engineering Controls

4.4.1 Ventilation

- General room ventilation patterns may not be altered by blocking room air supply grills or return duct grills, or by removing drop ceiling tiles; keep doors to shops and studios closed at all times.

- Local ventilation devices must only be used for the intended use. Existing systems may not support new operations and must be approved in advance by the EHS Campus Manager;

- Local exhaust should be used to capture point source discharges of chemicals from apparatus as appropriate; and

- Toxic chemicals should not be used outside of a chemical fume hood or other containment system in rooms where air is re-circulated, (e.g. air-conditioned rooms).

- All ventilation installations and removals must be in accordance with state and federal regulations and be reviewed by the EHS Campus Manager and Facility Services.

4.4.2 Chemical Fume Hoods/Canopy Hoods, Snorkels and Slot Exhaust

- Use the chemical fume hood for all operations that might result in an odoriferous, volatile, toxic, or harmful release;

- Work at least 6 inches into the fume hood;

- Elevate large apparatus 2 inches off of the hood deck with blocks at each end to allow airflow under the apparatus except where the elevation would make the equipment unstable;

- Maintain the sash at the posted height while in use;

- Do not use the fume hood for storage (approved storage cabinets should be used);

- A continuous monitoring device such as a thin strip of tissue paper or manometer should be installed on chemical fume hoods to allow the user to assure proper direction of air flow before beginning a task;
• Ductless or re-circulating fume hoods are prohibited.

4.5 Inspections

• Periodically, shop and studio inspections will be performed to not only inspect the facilities, but also assist in compliance with applicable Occupational Safety and Health Standards, applicable fire and life safety codes, and MA DEP environmental protection standards. See Appendix C.
5.0 Hazardous Waste Management

Solid and liquid wastes are generated throughout the SMFA at Tufts, including the various art classes, work areas, and the school’s maintenance operations. Many of these wastes are regulated under federal, state and/or local requirements that specify appropriate management and disposal measures. Inappropriate disposal of these materials could result in hazards to human health or the environment; and, non-compliance with state or federal laws resulting in violation and fines.

For this reason, SMFA at Tufts has conducted an evaluation of its current waste streams and classified them hazardous or non-hazardous according the regulatory program(s) under which they must be managed. Each Department, Shop, and Studio is responsible for notifying the Campus EHS Manager if new types of hazardous chemical waste are generated, or if additional information about an existing waste stream changes.

Tufts EHS utilizes the services of a licensed third party on-site Hazardous Waste Contractor at both the 230 Fenway and the 160 St. Alphonsus Street locations. Hazardous chemical wastes generated in the work areas are temporarily accumulated in small containers (satellite accumulation) which are under the control of the work area. The containers of hazardous waste are removed from shops and studios and transferred to the main accumulation areas at each location on a weekly basis or when the containers are full and/or the EHS Campus Manager is notified. The hazardous wastes in the main accumulation areas are periodically transported off site and disposed of at Tufts approved licensed facilities. Hazardous waste management is more fully discussed in the Tufts Hazardous Chemical Waste Management Plan. See link Appendix B.

5.1 Hazardous Wastes for Disposal

Hazardous waste generated at the SMFA at Tufts may include but not be limited to:

- Paint/thinner wastes;
- Waste inks/solvents;
- Spent glazing compounds;
- Photographic wastes;
- Spent pickling solutions;
• Scrap lead and lead dust;
• Expired chemicals/unused chemicals and empty aerosol spray cans;
• Broken or leaking batteries, lamps or fluorescence tubes; electric light ballasts, and
• Certain unused housekeeping chemicals or non-empty containers of housekeeping chemicals.

Note: Solvent-contaminated wipes are not considered hazardous wastes, but must be disposed of separately within the work area.

Proper use, management, and disposal of hazardous waste are of utmost importance. If you are unsure as to whether a material is a hazardous waste, or if you are uncertain how to manage such a waste, contact the Campus EHS Manager.

At no time and under no circumstance are hazardous wastes such as spent solvent, oil-based paint, (or other ignitable, corrosive, reactive, or toxic waste or material) to be poured and disposed of via the sink.

5.1.1 Hazardous Waste Containers

• Each container must be in good condition (does not leak, has no severe rusting, or structural defects);
• Must be compatible with the waste contained and have no incompatible residues with the waste material to be stored;
• Containers of ignitable/flammable waste (spent solvent, paint thinner) must be kept within approved secondary containment (unless stored/placed on an impervious surface to contain spills or leaks).¹

The SMFA at Tufts provides separate types of containers for the handling and management of waste as appropriate for each work area:

• 2.5-gallon red safety container with spring-loaded cover: Used to contain all waste paints and spent solvents (spent mineral spirits, turpentine, paint thinner, acetone, or other liquids used as solvents). The container should

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¹ An approved secondary container is a polyethylene or plastic container large enough to contain to entire volume of the primary waste container.
be labeled with the words “Hazardous Waste”, “Ignitable/Toxic” and “Spent Solvent/Paint Residue”.

- 6.0 gallon “trash” container with self-closing sealable lid: Used to contain solvent contaminated wipes or rags. The container should be labeled with the words “Solvent Contaminated Wipes Only”.

- A “trash” container with sealable lid: Used to contain hazardous waste solids, such as, lead scrapes, lead (dust) contaminated rags/wipes. The container should be labeled with the words “Hazardous Waste”, “Toxic”.

- A standard “trash” container: Used for non-hazardous materials such as paper, etc. The container should be labeled “Non-Hazardous Materials Only”.

### 5.1.2 Hazardous Waste Container Labels

- Each container of hazardous waste must be clearly and visibly labeled as follows:
  - The words “HAZARDOUS WASTE”;
  - The name of the waste (e.g., waste paint, turpentine, paint thinner, acetone); and
  - The type of hazard(s) (e.g., ignitable, corrosive, toxic, or other).

- A hazardous waste label must be used if the container does not have the appropriate wording (above) on the container. The label should be affixed over the existing label or old labels removed.

Labeling instructions:

1) Affix completely filled out label (except end date) when waste FIRST placed into container.

2) CONTENTS: List the primary substance(s) which render the waste hazardous, in words. Indicate approximate % of each substance (if more than one).

3) HAZARDS: check all applicable hazard boxes.

**Ignitable/Flammable:** Flashpoint less than 141°F (e.g., paint thinner, turpentine, acetone)
Corrosive: pH \( \leq 2 \) or \( \geq 12.5 \) (e.g., nitric acid, sodium hydroxide, ferric chloride)

Oxidizer: Yields oxygen (e.g., silver nitrite, potassium permanganate).

Toxic: Poison (e.g., methylene chloride, chloroform, phenol, silver, lead)

Other: Used to describe chemicals, chemical mixtures, or substances that are listed or characteristic hazardous waste – OR use to provide descriptive information for waste handling (e.g., water reactive, shock sensitive)

4) Date: Enter the date when the container becomes filled or otherwise ready for removal. For pickup, contact the EHS Campus Manager. Full containers must be picked up within three days.

5.1.3 Hazardous Waste Handling and Collection

- Wastes of different types must be segregated;

- Used wipes (contaminated with solvents, paint/thinners) are disposed of in separate (6.0 gallon) container with self-closing cover that is open only when adding or removing waste;

- Waste (spent) paint/thinner (solvent) is to be carefully poured into the small red safety container. Waste solvent containers are removed from the work area when full (containers must be checked weekly) by Tufts EHS Contract Chemists/service provider.

- Solid hazardous wastes (e.g., scrap lead) are to be disposed of in a separate container with sealable cover that is removed only when adding or removing waste. Solid hazardous waste will be removed from the work areas weekly by Tufts EHS Contract Chemist upon request.

- Hazardous waste will be picked up on the regularly scheduled weekly pick-up day unless special arrangements are necessary; and

- Large-scale/special pick-ups (e.g., pickling solution, unused/outdated hazardous material clean-outs) will be done by special arrangement by contacting the Campus EHS Manager.

5.2 Spills

Spills are classified as either a minor spill or a major spill:
A minor spill is characterized by all of the following criteria:

- Is inside a laboratory or room and hasn’t spread outside the laboratory or room;
- There is no fire or explosion; and
- Nobody is in need of medical attention.

This is a spill that can be safely handled by the laboratory staff:

1. Put on appropriate Personnel Protective Equipment. (gloves, protective eyewear, lab coat)
2. Contain the spill with spill pillows or absorbent material.
3. Place the absorbed spill material in secondary containment, such as the spill bucket. Label the container and notify TEHS to pick up container.
4. Completely clean area where spill occurred.
5. Dispose of contaminated PPE properly.

A major spill is characterized by any of the following criteria:

- Results in a fire or explosion;
- One or more people are requesting medical attention related to the spill or leak;
- Is not contained within a laboratory or room; or
- At the discretion of the patrol supervisor or Emergency Coordinator.

This is a spill that must be handled by Emergency Responders.

In the event of a spill, proper decontamination and clean-up must take place before normal operations can resume. Emergency Coordinators (typically EHS or Facilities personnel) will contact an environmental contractor to schedule clean-up and disposal of hazardous waste. For more information, see the Tufts Hazardous Waste Contingency Plan.

ALL CHEMICAL SPILLS MUST BE REPORTED TO TUFTS POLICE. They will contact Tufts EHS Office regardless of the time of day or night.
Appendix A – Studios and Shops at SMFA

- Ceramics
- Drawing
- Metals
- Painting and Drawing
- Performance
- Photography
- Film & Animation
- Printmaking and Papermaking
- Sculpture - Plaster
- Sculpture - Woodworking
- Sculpture - Welding
- Sound
- Text & Imaging Arts
- Video
Appendix B – References and Resources

1. Tufts Personal Protection Equipment Plan (available on the TU EHS web page)
   http://publicsafety.tufts.edu/ehs/laboratory-safety/ppe_plan/

2. RCRA’s Chemical Waste Compatibility List
   www.epa.gov

3. TU Hazardous Chemical Waste Management Plan
   http://publicsafety.tufts.edu/ehs/environmental-management/hazardous-chemical-waste-management/

4. TU Chemical Hazard Communication Plan
   http://publicsafety.tufts.edu/ehs/art-safety/chemical-hazard-communication-plan/

5. TU Ladder Safety Program


7. OSHA Regulations Requiring Medical Surveillance
   www.osha.gov

8. TU Electrical Safety Plan

9. MA DEP Policy for Industrial Wipes Contaminated with Solvents.
   https://www.mass.gov/orgs/massachusetts-department-of-environmental-protection

10. Compressed Gas Safety Checklist
Appendix C – Area Inspection Check List

All SMFA buildings are inspected periodically by the EHS Campus Manager to assist supervisors and Shop and Studio managers to comply with OSHA regulations, applicable fire and life safety codes, and MassDEP environmental regulations.

Self-inspections should be conducted at least every six months by Shop and Studio Managers using the following minimum guidelines:

☐ Exits are lighted and clear of obstruction.

☐ Every exit is clearly visible, or the route to reach every exit is conspicuously marked with exit signs so every occupant will readily know the direction of escape from any point.

☐ All means of egress are arranged and maintained to provide free and unobstructed egress from all parts of the building. All stairwells and corridors are maintained free of all storage.

☐ A minimum 3-foot clearance is maintained in front of all electrical equipment and emergency equipment including fire alarm pull stations, alarm panels, and fire extinguishers.

☐ All areas are clean and orderly and in a sanitary condition to reduce the risk of fire and to prevent slips, trips, and falls.

☐ Extension cords are not used in place of permanent wiring. Only approved surge protection strips are used when permitted.

☐ Gas cylinders are properly secured.

☐ Fire and smoke doors are not propped open. They may remain open or held open with magnetic hold back devices only. Otherwise doors should be kept closed.

☐ Chemicals are in appropriate containers and located in storage cabinets according to compatibility. All containers are labeled with the complete chemical or product name and the appropriate hazard warning.

☐ Appropriate PPE (personal protective equipment) such as gloves and safety glasses are provided and in use by staff and students.
Emergency numbers and evacuation procedures are posted in conspicuous locations.

All personnel have received appropriate safety training and instruction including but not limited to hazard communication and emergency evacuation planning/responsibilities.

Are chemical waste collection container(s) marked or tagged “Hazardous Waste”?

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**STAFF AND STUDENT QUESTIONS OR INTERVIEWS**

All personnel should be able to answer the following questions:

- What are the evacuation procedures for your department?
- Where are the primary and secondary means of egress for your work area?
- Where is the meeting location outside the building and how are personnel accounted for after evacuation?
- What should be done if there is a chemical spill or fire?
- What are SDSs and where are they located?
- What are the health hazards associated with the chemicals used in the work area?
- What are the signs and symptoms associated with exposure to these chemicals?
- What measures (work practices, emergency procedures, personal protective equipment, etc.) can be taken to protect yourself from hazards you encounter in your work area?