

<b>University of Pittsburgh Safety Manual</b>	<b>EH&amp;S Guideline Number: 01-012</b>	
<b>Subject: FINE ARTS, STUDIO ARTS AND PRINTING OPERATIONS</b>	<b>Effective Date: 09/10/2013 Review Date: 5/21/2020</b>	<b>Page 1 of 2</b>

## FINE ARTS, STUDIO ARTS, AND PRINTING OPERATIONS

1. In addition to the guidelines provided by the *University of Pittsburgh Chemical Hygiene Plan*, University faculty, staff and students working within Fine Arts, Studio Arts, and Printing Operations should observe the following guidelines in an effort to provide a safe and healthful working environment:
  - 1.1. Use non-toxic or less toxic solvents and chemicals when possible.
  - 1.2. Eliminate toxic metals and products containing toxic metals, such as lead and cadmium. Use cadmium-free silver solders and lead-free paint, glazes and enamels.
  - 1.3. Use water-based rather than solvent-based materials.
  - 1.4. Use liquid or pre-mixed materials to replace powders.
  - 1.5. Use wet techniques (such as wet sanding) instead of dry techniques to minimize dust or particulate production.
  - 1.6. Apply coatings by brushing or dipping instead of spraying.
  - 1.7. Dispose of all spent, excess or waste chemical-containing products by following University Chemical Waste Disposal guidelines.
  - 1.8. Wear proper hand protection when handling chemical powders or solutions (consult glove manufacturers to determine chemical resistance).
  - 1.9. Read and follow the manufacturer's instructions and Safety Data Sheets (SDSs) for safely mixing or preparing chemicals, particularly following all instructions for preparing chemicals in sequential order.
  
2. **POTTERY AND CERAMICS**
  - 2.1. Pottery clay contains silicates that can be harmful if inhaled. Many low-fire clays and slip-casting clays also contain talc, which can be irritating if inhaled. When mixing clay dust or breaking dry "grog," use local exhaust ventilation. Work with wet clay when possible.
  - 2.2. Pottery glazes may also contain free silica, including flint, feldspar, and talc. Long-term exposure to these materials may cause permanent lung damage. Use safer alternative products when necessary; use in well-ventilated spaces; and when indicated, use respiratory protection when mixing or spraying glazes.
  - 2.3. Fumes and gases are often produced during the firing process. Ensure that all kilns are well ventilated to a safe area outside the building. Use infrared goggles or a face shield to view the kiln through the access port. Also, use the appropriate apparel, eyewear, and gloves to prevent injury from radiant heat and light generated from the kiln.

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3. A variety of chemicals including fixers, developers, replenishers, and stabilizers are used in photographic development processes. Some of these processes generate hazardous materials such as silver, chromium, and corrosive substances that must be disposed of in accordance with *University of Pittsburgh Guideline for Photographic Chemicals and Equipment (EH&S # 04-016)*. Please follow these guidelines when working with photographic chemicals and equipment.

### 3.1. PURCHASE

- 3.1.1. Do not purchase excessive quantities of photographic chemicals. Purchase only the minimum, useable amounts of chemicals as needed.
- 3.1.2. Photographic chemicals often have limited shelf life. Purchase only the amounts that would be used prior to expiration.
- 3.1.3. Photographic equipment that processes materials classified as a regulated waste should be selected or retrofitted with a recovery system that prevents discharge of regulated material into the sanitary system.

### 3.2. STORAGE

- 3.2.1. Segregate all incompatible chemicals. Consult chemical-specific Safety Data Sheets (SDS) for chemical incompatibilities and storage requirements.

### 3.3. HANDLING AND USE

- 3.3.1. Wear appropriate personal protective equipment (lab coat, safety glasses, gloves, etc.) when handling photographic products and chemicals.
- 3.3.2. When collecting used photographic chemicals, an orange “WASTE CHEMICALS” label should be filled out completely and placed on the bottle. The label should include the following:
- the common chemical name (no formulas, abbreviations or nomenclature)
  - quantity of material
  - the major hazard of the material
  - name of the person preparing the chemical for disposal, department name, and telephone number in case there are questions associated with the material
  - the start date when waste is first added to the container
- 3.3.3. All recovery systems must be emptied and serviced per manufacturer instructions.

### 3.4. DISPOSAL

- 3.4.1. Photographic processing chemicals must be collected and disposed through the University’s Chemical Waste Program. **Do not dispose photographic chemicals through the sanitary sewer or in the general trash.**