

STANDARD OPERATING PROCEDURE
PHOTOGRAPHY LABORATORY (DARKROOM) CHEMICAL USAGE

I. POTENTIAL HAZARDS:

- While the majority of the black and white chemicals are in the range of non-toxic to slightly toxic to most people, black and white developers and color chemicals are in the range of slightly toxic to toxic, especially if these developers or color chemicals are ingested, inhaled, or come in contact with bare skin.
- To protect oneself from possible bronchitis, sinusitis, increased allergic sensitivity, skin rashes, and a host of other more serious damage (that primarily comes from long term and consistent unsafe exposure), please read the following rules for handling photo chemicals in the labs.
- It is vital to one's health to follow these rules!
- It is also vital to one's health that if one has bronchitis, sinusitis, allergic-sensitivity, are pregnant or planning to be pregnant soon, or are taking any medication (especially lithium carbonate based!) that the person consults a doctor to make certain that it is safe to work around photographic chemistry.
- Please advise the instructor if a student has any medical history that may cause complications due to the presence of photographic chemicals. If pregnant, for example, especially if in the first trimester, one probably should not be around color chemistry.
- Please check with a doctor if one has the slightest doubt about one's sensitivity to chemicals now, or if one notices any even slight change in one's health during the course of this photo class.
- We all want students to stay healthy and live a long, productive life as artists.

II. ENGINEERING CONTROLS:

- An eyewash/drench hose combination unit must be available in the immediate work area for any work with corrosive materials, including bleach.

III. WORK PRACTICE CONTROLS:

- Wear gloves or use tongs when processing black and white paper. The only place one may use bare hands is to remove prints from the water bath or to wash prints. Developers are toxic, especially if absorbed through the skin over long periods of time.
- When processing color, use gloves for both film and paper processing. Color chemicals are very toxic!!!
- Only the instructor may mix chemicals.

- Clean up any chemical spills immediately. Flood the area with cold water and wipe up with paper towels, cleaning until certain the chemicals are gone.
- Chemicals dry, turn to powder, get on clothes and books, and then into lungs or it is absorbed into the skin.
- If using gloves or tongs, wash the gloves with soap before removing them, then wash them inside and out with soap and hang to dry. Whether using gloves or tongs, wash hands thoroughly with soap before smoking, drinking, or eating.
- Read and follow all instructions and safety recommendations provided by the manufacturer before undertaking any process. This includes mixing, handling, disposal, and storage.
- Become familiar with all the inherent dangers associated with any chemicals being used. When acquiring chemicals, ask about proper handling and safety precautions.
- Many chemicals can be flammable. Keep them away from any source of heat or open flame to avoid a possible explosion or fire. Keep a fire extinguisher in the work area that can be used for both chemical and electrical fires.
- Work in a well-ventilated space. Hazardous chemicals should be mixed under a vented hood or outside.
- Keep all chemicals off one's skin, out of one's mouth, and away from one's eyes. If any chemicals get on the skin, flush the area immediately with cool running water.
- Do not eat, drink, or smoke while handling chemicals.
- Always pour acids slowly into water; never pour water into acids. Do not mix or pour chemicals at eye level, as a splash could be harmful. Wear protective eye wear when mixing acids.
- Avoid touching any electrical equipment with wet hands. Install shockproof outlets in the darkroom.
- Store all chemicals properly. Use safety caps or lock up chemicals. Store chemicals in a cool dry area away from any direct sunlight.
- If one is pregnant or has any pre-existing health problems, seek medical advice before attempting any chemical process in photography.
- Remember, people have varying sensitivities to chemicals. Should an allergic reaction to any chemical occur, the individual should pay close attention to the effects that darkroom chemicals have on oneself, and exercise extra care about following all safety procedures.

IV. PERSONAL PROTECTIVE EQUIPMENT (PPE):

- Chemical splash goggles (over prescription glasses)
- Pants or skirts that extend to below the knee
- Shoes that completely cover the feet
- Clothing made of natural fibers



V. Waste Disposal

- Handle and store wastes following the guidelines above while accumulating wastes and awaiting chemical waste pickup. Waste must be disposed of following Columbia State's [Hazardous Waste Policy 06-04-00](#). Contact the director of Facility Services and Safety for assistance for determining appropriate methods for disposal.