

SAFETY GUIDELINES FOR ARTISTS IN LIVE/WORK ENVIRONMENTS

Art materials in many types of media contain toxic ingredients. Using these products can result in health problems including dermatitis, allergies, silicosis, liver, kidney or eye damage, reproductive harm, cancer and other ailments. Artists of all disciplines should be encouraged to not only research the materials they are working closely with, but also take additional measures to ensure that their studio environments are set up safely, especially in cases of working in a living environment and potentially exposing children, immune compromised individuals, and or small pets to potential toxicities.

SETTING UP A WORK AREA

- If at all possible, separate work and living environments (i.e. kitchen, bedrooms, etc.) If this is not an option, ensure that you take extra measures to clean your areas when finished and not spread contaminants while working.
- Ensure your work area/table is sturdy and is not capable of tipping over. Regardless of your working surface, make sure to choose one that is comfortable to work at if you are working long hours at a time. Consider standing or having the ability to stand if you can to work.
- Minimize messes by putting down plastic, cardboard or paper on the table, floor underneath, on surrounding walls. (i.e. painter's plastic, shower curtain, garbage bags, tarp.)
- Consider purchasing a cutting mat if you are working with Xacto knives and sharp items.
- Keep floors clean of messes or slippery spots. Clean all dusts and pigment spills with a sponge and water vs. broom to minimize inhaling material hazards.
- Ensure your work area is well lit. Working in a poorly lit or dark environment can be harmful to your eyes and or be a hazard if using hazardous materials or tools.
- Ensure you have proper ventilation if applicable. This can mean opening up nearby windows and/or placing a fan near your work area to draw fumes away from you. Work nearest the windows for the least amount of exposure. Consider when you are using fine dusts, mists, or fumes. If it is possible it is best to work outside.
- Fires and electrical shock may be caused by overloaded electrical circuits, extension cords, or power strips or tools that are not properly grounded. Purchase tools that are double insulated. Reduce the use of extension cords and power strips by replacing them with hardwired ground fault circuit interrupter (GFCI) protected outlets whenever possible. When an extension cord must be used, purchase the type with a GFCI built into it. If your electrical circuit breaker trips, reduce the load and reset it once. If the circuit trips again, obtain the assistance of an electrician. The circuit may have a short that could lead to a fire.
- Avoid using space heaters.

MATERIALS and SUBSTITUTIONS

Know the materials and reaction of materials you are working with. If you are able to, substitute safer materials and work with smaller quantities to limit exposure rate.

- If a paint is described as a "hue" (i.e. Cadmium Red Hue vs Cadmium Red) there is little or no toxic metal in the paint/ink in the product.
- Use Turpenoid (painting medium/cleaner) to replace Turpentine, Xylene, Mineral Spirits, Gasoline, Toluene
- Choose water-based and acrylic over oil if possible. Note that acrylic Paints contain trace amounts of ammonia. Work near a window if you are using large amounts.
- Substitute baby, vegetable, mineral, olive oil to clean brushes and wash hands.
- Dish soap and liquid detergents are surfactants and can break down oils on clothes, palettes, and surfaces without the use of solvents.
- Try to brush items rather than spraying if possible. The exposure limits are much lower.
- If you need to use an alcohol to remove residue or Sharpie marker, use Isopropyl Alcohol (Rubbing Alcohol) vs. Ethyl and/or Methyl Alcohol.

- Although charcoal is just considered a nuisance dust, inhalation of large amounts of charcoal dust can create chronic lung problems through a mechanical irritation and clogging effect. A major source of charcoal inhalation is from the habit of blowing excess charcoal dust off the drawing.
- Use water-based markers and drawing inks if possible.
- Use caution when using hair dryers, wood burning tools, heat guns, ovens, microwaves, stoves etc. as art making tools.

DO NOT MIX LIST:

BLEACH + AMMONIA = TOXIC CHLORAMINE VAPOR

BLEACH + RUBBING ALCOHOL = TOXIC CHLOROFORM

BLEACH + VINEGAR = TOXIC CHLORINE GAS

VINEGAR + HYDROGEN PEROXIDE = PERACETIC ACID

BAKING SODA + VINEGAR= WATER+SODIUM ACETATE (if stored with a lid the mixture will explode)

STORAGE

Tools

- Store any sharp or cutting tools with blades tucked away, or temporary remove cutting head while not in use.
- Store heavy tools closer to the ground to minimize falls and drops.
- Consider storing tools in a case or a box to discourage falling or rolling tools.
- Inspect tools at the end of the day (in addition to the beginning of the day) to ensure they are in good operating condition.

Liquids and Solids

- Buy, use and store chemicals wisely. Read the product label. When possible, choose the safest materials available.
 - DANGER is reserved for products that have serious health or safety hazards associated with them, such as being highly toxic, corrosive, or flammable.
 - WARNING and CAUTION are used on less hazardous substances. Most labels provide additional safety information including a list of specific potential hazards associated with the material
- Do not deface manufacturer's labels on materials that you are using. If transferring to secondary storage, all product information including product name and date transferred should be transferred as well.
- For more information on specific art materials search the internet for the name of the product followed by the letters "SDS" to find a safety data sheet for the product.
- Store liquids in original containers. If this is not possible and secondary containment is required, avoid using food containers for materials storage. Some materials will break down plastics, therefore causing spills; use similar storage material if possible or glass jars with a lid.
- Keep lids closed when not in use. Ensure liquids are stored with a properly sealed lid to avoid dusts, liquids or vapors from escaping.

Flammable Materials

- Never store large amounts of flammable or combustible materials.
- Materials that are flammable (check the label) should never be stored near heat sources or ignition sources. If possible, store in a flammable or combustible OSHA- approved fireproof cabinet. Store materials outside if possible.
- Do not store flammable or combustible items in sunlight.
- Store reactive chemicals separately.

Combustible Materials (rags, paper towels, etc.)

Spontaneous combustion of oily rags occurs when rag or cloth is slowly heated to its ignition point through oxidation. If this heat has no way to escape (as in a pile) the temperature will raise to a level high enough to ignite the oil and ignite the rag or cloth.

- If you are using rags for cleanup of combustible materials (anything containing linseed oil, oil-based paint/inks you will need to take extra measures in order to prevent spontaneous combustion.
- Dirty rags/paper towels used for cleanup should never be stored in a pile or left crumpled up in the garbage. Once rags/paper towels are used they should be left to dry by being spread out flat on the floor, pinned to a wall.
- Dirty rags can also be plunged into a bucket of water mixed with liquid detergent for storage or disposal. Let sit for several hours. Wring dry and dispose.

DISPOSAL

- Ensure that only water-based items go down sink drains. Do not pour contaminated wastewater or flammable liquids directly into storm drains.
- Learn if your working sink is connected to a septic tank or sewer. No wastewater contaminated with hazardous products is allowed in septic tanks. (Look for labels stating Danger, Warning, Caution, or Poison.)
- Do not dump glues, inks/paint (even though they are water-based) clay, paper-pulp, gelatins, plaster, etc. down sink drains. Materials such as these should be dried out to evaporate (outside is best) first and then disposed of in the garbage. Water-based waste can also be cleaned up with paper towels and thrown away.
- Do not dispose sharp items (razor/Xacto blades, pins, needles, broken glass) directly into garbage cans. Small sharp items for disposal can be wrapped with tape and placed into the garbage. Broken glass or mirrors should be taken immediately to dumpsters and or placed into boxes or paper bags before going into garbage cans.

PPE (PERSONAL PROTECTIVE EQUIPMENT)

- Wear disposable nitrile or PVC gloves when working with solvent-based materials or materials that contain hazardous substances. Check the label or associated SDS sheet for full disclosure.
- Wear an N95 particulate mask when working with fine powders or dusts. Ensure the mask is fitted properly. Particulate masks do not provide protection against chemical vapors or gases.
- Wear hearing protection (ear plugs or ear muffs) if you are working with equipment that is loud or exhibits levels above comfortable decibel levels.
- Wear impact goggles for work done with any electrical tools to protect your eyes. Prescription glasses may not provide adequate protection against flying fragments.
- Wear chemical splash goggles for work done with hazardous liquid substances.
- Wear appropriate fitting clothing (i.e. avoid loose/baggy clothing), tie long hair back, remove jewelry (long necklaces or bracelets), and wear comfortable shoes when working with art materials. Items such as these can be considered a distraction and are therefore hazardous to wear when working.
- Do not eat or drink near your work area.
- Wash hands after working and before eating. Use soap and water or baby oil as a skin cleanser. Do not touch face when working.

SUPPLEMENTARY INFORMATION / IMPORTANT CONTACTS:

Arts & Creative Materials Institute

<http://www.acminet.org/>

Arts, Crafts & Theater Safety

<http://www.artsandcraftstheatersafety.org/datasheets.html>

Center for Research on Occupational and Environmental Toxicology â€” Artist

<http://www.croetweb.com/links.cfm?subtopicID=182>

Guidelines for the Safe Use of Art and Craft Materials

<http://oehha.ca.gov/education/art/>

National Library of Medicine - Keeping the Artist Safe: Hazards of Arts and Crafts Materials

<https://sis.nlm.nih.gov/enviro/arthazards.html>

Poison Control 1-800-222-1222

UW SoA+AH+D Instructional Technicians (for material specific assistance)

Andy Fallat, Sculpture

afallat@uw.edu

John Martin, Woodshop

jtmartin@uw.edu

Flyn O'Brien, Design

flyn@uw.edu

Sean O'Neil, Glass

soneill3@uw.edu

Jinsoo Song, Ceramics

jsong74@uw.edu

Michael Van Horn, Photography

mvh@uw.edu

Kim Van Someren, Printmaking/Painting + Drawing

kimvs@uw.edu