

Understanding Hazardous Materials in the Arts:

Housekeeping and General Precautions

House keeping means more than simply being clean. This concept also deals with the organization of your workspace, tools, materials, and your mental mise en place. The following guidelines will help you set up a safe place to work.

1. Keep your art studio (or work space) separate from your living area as possible. This doesn't mean that you cannot have a workspace in your home, but it is very important to keep the two spaces separate and to treat your workspace like a shop.
2. Do not eat or drink in your studio. Failure to appropriately wash up prior to consuming anything provides an easy route to chemical contamination via ingestion. Open bottles or cups can also collect hazardous dusts that will be ingested when drank.
3. Keep your work cloths separate from everyday ware. Change when you are done working and wash these cloths separately.
4. Keep the floors clear and clean, ensure there are not tripping hazards present in your workspace; keep all tools and equipment organized. Always be knolling.
5. Have a fire extinguisher on hand that is suited to the materials you are using. Check it regularly, and have it recharged if you have to use it (even if it is only partly emptied).
6. Keep cleaning supplies on hand; attend to spills immediately, even if they are small.
 - a. Activated charcoal, diatomaceous earth, and deodorant-free kitty litter can be used to contain flammable spills.
7. Minimize the space where hazardous materials will be used.
8. Read the labels on your materials and the MSDS/SDS. This is the best way to get an idea of the chemicals toxicity, its acute and long-term health effects, instructions on how to safely work with it, and clean up procedures in the event of a spill.
 - a. Due to the volatile nature of most solvents you need to know how to deal with them before an accident occurs. If a large volume of a highly volatile solvent spills you will have a matter of seconds to choose your reaction.
 - b. Substitute safer materials whenever possible
 - i. Water based products tend to be safer than solvent based
 - ii. Try to choose products that do not create dusts or mists
 - iii. With solvents it is not always easy to figure out which is the safest to use, when confused, seek the advice of a professional.
9. Do not use materials in unintended ways. The statements about a products safety and toxicity are only valid when used as directed by the manufacturer. Crayola Crayons are non-toxic; if you melt them they off gas and produce toxic fumes. There are big differences between industrial grade paints, consumer grade paints, and body paints.

10. Work with the smallest amount of a chemical as you can at any given point. This will reduce the likelihood of a spill, and minimize the severity of any accident that may happen.
 - a. If a small amount of the chemical is left at the end of the work day, cannot be returned to the original bottle, and you want to keep it; it must be stored in an appropriate container, be labeled with the contents, and have any warnings from the original container transcribed onto the new one. This is referred to as "Hazard Communication"
11. Do not store hazardous materials in containers that are commonly used for food or drinks (E.G. Mason Jars). This creates unnecessary danger for you and anyone else in your studio.
12. Make sure you have adequate ventilation. This is a very hard thing for the layperson to quantify; the average person doesn't have access to a sniffer or the education to truly understand TLV's. The baseline definition of "adequate ventilation" is clean air flowing towards the artist with contaminated air flowing away. This requires a source of fresh air, and a way to evacuate the contaminated air. In general, if you are able to smell the solvent you are working with the ventilation is inadequate.
13. Avoid using solvents to clean your skin.
14. Do not hold brushes or tools in your mouth; don't point brushes with your lips. Any guesses as to why?
15. National Poison Control Center Hotline is 1-800-222-1222. They can answer questions about chemical exposure.

Storage of Chemicals and Flammable Materials

1. Store flammable or combustible solvents in an OSHA approved fireproof cabinet. Keep the cabinet closed, and vent it if required by local codes.
2. Rags that are soaked with drying oils, solvents, stains, etc can spontaneously combust. Rags should be stored in a container that does not allow air in or vapors out. There are OSHA approved containers available.
3. Do not store your flammable materials in any lanes of egress
4. Keep a dry chemical or CO2 fire extinguisher near by.
5. Keep the labels on your materials clean and readable.
 - a. If you store a small amount of a chemical in a different container transcribe all of the information onto the new container
6. Keep your chemicals out of direct sunlight
7. Store reactive chemicals separately
8. Do not work with or store chemicals you are not prepared to deal with in the event of a spill.

Disposal of solvents and other hazardous materials

1. Every state and county will have regulations that govern the disposal of hazardous materials. Make sure you know the local laws before you pour or throw hazardous materials out.
2. At FSU we have collection areas in each lab that are serviced by Environmental Health and Safety
3. Allow gules and cements to dry before throwing them away.
4. Many localities have programs for residential disposal of hazardous waste.

Personal Protective Equipment

1. Eye protection
 - a. There are many different types of eye protection. Standard corrective lenses are not a substitute for safety glasses or chemical goggles.
 - b. Safety glasses that are designed to protect from impact (standard shop safety glasses) will not adequately protect you from a chemical splash
- 2.

Types of exposure and delayed symptom development

Information

Hazard communication

MDSD/SDS

First Aid

Minimizing risks and exposure

Types of Chemical Hazards: Inhalation, skin absorption, ingestion