

## SAFE HANDLING, TREATMENT AND DISPOSAL

### WORKSHOP 2: Studio Safety, Hazardous Materials and Environmental Health for Artists

Monona Russell

#### **Use of the following items is strictly prohibited within the School:**

- Turpentine and turpentine-based products
  - Spray paint
  - Aerosol fixatives
  - Poly resins
  - Varnishes
- The use of any items with an odor is not permitted. If you have any questions or concerns about the use of specific items in your studio, please see either Carrie Pollack, Painting Technician, or Chris Esposito, Building & Studio Manager for more information.

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General Category	Subcategory	Examples	Precautions	Disposal as Hazardous Waste	Treatment & Disposal Recommendations / Comments
Drawing	Pen and ink		Do not apply solvent-based inks using spray application techniques such as air-brushing. Use alcohol or water-based markers instead of those containing flammable and/or toxic materials.	Hazardous waste determination must be performed to identify the presence of regulated chemical constituents	Flammable and toxic organic solvent-based inks are hazardous waste materials when disposed.
	Spray Fixatives		When applying fixative or surface mount adhesives, wear appropriate PPE; apply in a spray booth if available, follow manufacturer's recommendations for safe use and handling	Hazardous waste determination must be performed to identify the presence of regulated chemical constituents	Ensure aerosol spray cans are completely empty. Spray cans with residue are fire and explosive hazards and are regulated waste materials.
	Pastels		Colorants and pigments containing toxic heavy metals are hazardous by ingestion or inhalation, avoid creating dust	Hazardous waste determination must be performed to identify the presence of regulated chemical constituents	Obsolete or abandoned material containing listed metals should be managed as hazardous waste
	Pencils, Graphite, Charcoal & Chalks		Colorants and pigments containing toxic heavy metals are hazardous by ingestion or inhalation, avoid creating dust. Water-based drawing gums are available as a preferred alternative to solvent-based gums	Hazardous waste determination must be performed to identify the presence of regulated chemical constituents	Obsolete or abandoned material containing listed metals should be managed as hazardous waste

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Sculpture	Plaster		Wear an approved dust mask. Avoid the creation of dust; work with wetted materials when possible; clean dust by wet mopping or vacuuming with a HEPA vac.	Not hazardous waste	Place in the trash in sealed plastic bags.
	Plastics/Plastic Resins		Volatile and reactive materials require local exhaust. Highly reactive and flammable materials. Some resins contain listed carcinogens. Follow manufacturer's recommendations for safe use and handling.	Flammable and toxic organics are regulated. These include epoxy, methyl methacrylate, phenol- or urea-formaldehyde, polyester and polyurethane.	Excess and obsolete resins should be reacted with a compatible catalyst to form a solid plastic which can then be placed in regular trash. Plasticizers, resins and catalyst should be disposed of as hazardous waste. Solid plastics are not considered hazardous waste.
	Organic Peroxides	Methyl ethyl ketone peroxide, benzoyl peroxide	Organic peroxides can burn or explode if heated. They become unstable over time and can be extremely reactive. Rotate inventory regularly and avoid storing beyond shelf-life.	Flammable, toxic and reactive materials are regulated.	Follow manufacturer's recommendations for safe use, storage and handling. Keep minimal quantities on hand. Consider eliminating use to avoid risk.
Ceramics	Clay		Premixed clays are commercially available, avoid creating dust; minimize hammering dry clay; wet materials to clean up or vacuum with HEPA vac	Not hazardous waste	Place in normal trash in sealed plastic bags to minimize dust exposures. Clay not listed as a RCRA hazardous waster
	Glazes		When applying, wear appropriate PPE, apply in a spray booth if available, follow manufacturer's recommendations for safe use and handling	Hazardous waste determination must be performed to identify the presence of regulated chemical constituents	Glazes containing toxic metal pigments or flammable or toxic organics require hazardous waste treatment and disposal

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Surface Coating Paints, Enamels, Stains, Varnishes	Water-based Coatings	Paints, varnishes, stains, finishes, sealants	Follow manufacturer's recommendations for safe use and handling. Provide adequate local exhaust.	Hazardous waste determination must be performed to identify the presence of regulated chemical constituents	Uncured paints containing lead, cadmium, chromate pigments, or mercury preservatives should be disposed of as hazardous waste. Other water-based paints and coatings should be allowed to dry and then placed in trash.
	Solvent-based Coatings		Some oil or solvent-based coatings may contain cadmium, chromium, lead, nickel or selenium. Avoid creating dust or mist. If spraying, use a spray booth. Follow manufacturer's recommendations for safe use.	Hazardous waste determination must be performed to identify the presence of regulated chemical constituents	Solvent-based materials should be disposed of as hazardous waste. Stains containing wood preservatives such as arsenic or phenol derivatives may be hazardous waste.
	Watercolors		Follow manufacturer's recommendations for safe use. Avoid creating dust or mist. Use a spray booth if spraying.	Hazardous waste determination must be performed to identify the presence of regulated chemical constituents	Uncured paints containing lead, cadmium, chromate pigments, or mercury preservatives should be disposed of as hazardous waste.
	Acrylic Paints (Water-Emulsion)				
	Oil Paints				
	Oils n.o.s. as vehicle for paint formulations	Linseed oil, safflower oil, tung oil	Oils and oil-soaked rags are combustible and create the potential for spontaneous combustion	Hazardous waste determination must be performed to identify the presence of regulated chemical constituents	Oil- or solvent-soaked rags may be cleaned at commercial laundry operations. The oil and organics are reclaimed for reuse or energy recovery and are therefore not considered hazardous waste. Oil-soaked rags may be hung up to dry individually so that heat cannot accumulate and then reused.
	Solvents & thinners, cleaners, degreasers	Turpentine, acetone, mineral spirits, methyl ethyl ketone, xylene, toluene, glycol ethers	Volatile organics (flammable liquids) are readily absorbed by the body from all routes of exposure. Always use with adequate ventilation. Keep all ignition sources away from area. Keep containers tightly closed. <b>The use of turpentine or turpentine-based products is strictly prohibited in the School.</b>	Hazardous waste determination must be performed to identify the presence of regulated chemical constituents	Flammable and toxic organics are regulated hazardous waste.

## SAFE HANDLING, TREATMENT AND DISPOSAL

Books on health and safety in the Library:

*The artist's complete health and safety guide*, by Monona Rossol. **RC963.6 .A78 R67 1990**

*Health hazards manual for artists*, by Michael McCann. **RC963.6 .A78 M324 1994 (two copies, one on shelf, one in Reference)**

*Safe practices in the arts & crafts: a studio guide*, Julian A. Waller. **N8510 .W15 Reference section**

*Environmental health & safety in the arts: a guide for K-12 schools, colleges and artisans*. **In the Library office**