Pennsylvania College of Art & Design

Chemical Hygiene Plan

August 2022

Emergency Contact Information

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Lancaster County Hazmat	717.537.4197
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911 may be contacted at the discretion of the reporting party

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Introduction

Policy

The goal of the Chemical Hygiene Plan (the Plan) of the Pennsylvania College of Art & Design (the College) is to comply with all applicable safety and environmental regulations.

The responsibility for safety and environmental compliance at the College rests with everyone. The management of safety and environmental programs has been delegated to the Director of Physical Plant. Implementation of the environmental policies contained in the Plan is achieved by communicating its goals and Standard Operating Procedures (SOP's) to students, faculty, and staff. Ultimately, the success of the implementation of the Plan relies upon the collaborative efforts of administration, faculty, lab technicians, and students. It is necessary for faculty and staff to demonstrate leadership in the day-to-day implementation of all aspects of the Plan.

All faculty, staff, and students should be sure to take advantage of all training resources available to them. Additionally, all faculty, staff, and students are encouraged to report all unsafe conditions to their supervisor, department chair, and/or the Director of Physical Plant in writing.

Scope of the Chemical Hygiene Plan

The College is dedicated to compliance with applicable local, state, and federal regulations. In order to comply with said regulations, faculty, staff, and students must be familiar with Standard Operating Procedures (SOP's), proper work practices, protective equipment, and follow all applicable safety and environmental guidelines. Faculty, staff, and students must be attentive to their surroundings and take a proactive approach to preventing any potential harmful or dangerous situations.

Applicability

The Plan and its Standard Operating Procedures apply to all areas within the College and its facilities where the handling, storage, disposal, and any potential exposure of hazardous chemicals/materials occur. Additional, "area specific" training may be required for some students, faculty and staff.

Responsibilities

The Director of Physical Plant or designee is responsible for maintaining this program, performing all required training, and making all updates to procedures and this plan document as required. The Director of Physical Plant or designee is also responsible for maintaining all SDS sheet information, keeping all disposal logs and documentation.

Students, faculty and staff are responsible for understanding and following the procedures explained in this plan. You are also responsible to make sure your classmates and others follow the standards as presented. Report any and all violations of these standards to a faculty member or the Director of Physical Plant. Make every effort to take care of your environment inside and outside the classroom.

Training

Training for faculty will be held during Colloquium at the start of the fall semester, and as required for new faculty at the start of the spring semester. Training for students will be conducted during the first scheduled class meeting of each semester in courses where hazardous materials are used. Each training session will cover all Standard Operating Procedures (SOP's), and will include the following topics:

- Identifying hazardous materials.
- Hazardous communication standard.
    - "Right-to Know".
    - Safety Data Sheets (SDS).
    - Access to information.
    - Proper container labeling.
- Instruction on proper handling and storage of hazardous materials.
- Use of Personal Protective Equipment (PPE) and engineering controls.
- Hazardous waste management & satellite accumulation areas (SAA's).
- Spill cleanup.
- Reporting of hazardous conditions.

Identifying Hazardous Materials

Hazardous materials are everywhere throughout the College. OSHA's definition includes any substance or chemical which is a "health hazard" or "physical hazard," including: chemicals which are carcinogens, toxic agents, irritants, corrosives, sensitizers; agents which act on the hematopoietic system; agents which damage the lungs, skin, eyes, or mucous membranes; chemicals which are combustible, explosive, flammable, oxidizers, pyrophorics, unstable-reactive or water-reactive; and chemicals which in the course of normal handling, use, or storage may produce or release dusts, gases, fumes, vapors, mists or smoke which may have any of the previously mentioned characteristics.

Examples:

- All acrylic, latex, oil, and watercolor paints and mediums.
- All solvents and inks.
- All photography chemistry.
- All spray mediums.
- All janitorial chemicals and cleaners.
- Fluorescent light bulbs, ballasts, and batteries.

Hazardous Communication – Right to Know

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) includes community right-to-know reporting requirements. The Occupational Safety and Health Administration (OSHA) require that Safety Data Sheets be made available wherever a hazardous chemical is used in an occupational setting.

Safety Data Sheets – SDS & Access to Information

A master inventory of SDS information is maintained and held by the Director of Physical Plant. These SDS sheets can be found online at Http://www2.pcad.edu/Facilities .
Area-specific SDS information is kept wherever hazardous chemicals are handled.

READING SAFETY DATA SHEETS

The Occupational Health and Safety Administration's (OSHA) Hazard Communication Standard (HCS) requires chemical manufacturers, distributors, or importers to provide Safety Data Sheets (SDSs) (formerly known as Material Safety Data Sheets or MSDSs) to communicate the hazards of hazardous chemical products. The HCS follows the Global Harmonized System of Classification and Labeling of Chemicals (GHS). The HCS requires the new SDSs to be in a uniform format, and include the section numbers, the headings, and associated information under the headings below.

Section 1, Identification Includes product identifier; manufacturer or distributor name, address, phone number; emergency phone number; recommended use; restrictions on use.
Section 2, Hazard(s) identification Includes all hazards regarding the chemical; required label elements.
Section 3, Composition/information on ingredients Includes information on chemical ingredients; trade secret claims.
Section 4, First-aid measures Includes important symptoms/side effects, acute, delayed; required treatment.
Section 5, Fire-fighting measures Lists suitable extinguishing techniques, equipment; chemical hazards from fire.
Section 6, Accidental release measures Lists emergency procedures; protective equipment; proper methods of containment and cleanup.
Section 7, Handling and storage Lists precautions for the safe handling and storage, includes incompatibilities.
Section 8, Exposure controls/personal protection Lists OSHA's Permissible Exposure Limits (PELs); American Conference of Governmental Industrial Hygienist (ACGIH) Threshold Limit Values (TLVs); and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the SDS where available as well as appropriate engineering controls; personal protective equipment (PPE).
Section 9, Physical and chemical properties Lists the chemical's characteristics.
Section 10, Stability and reactivity Lists chemical stability and possibility of hazardous reactions.
Section 11, Toxicological information Includes routes of exposure; related symptoms; acute and chronic effects; numerical measures of toxicity.
Section 12, Ecological information Includes information on ecotoxicity; persistence and degradability; bioaccumulitive potential; mobility in soil
Section 13, Disposal considerations Includes description of waste residues and information on their safe handling and methods of disposal, including disposal of any contaminated packaging
Section 14, Transport information Includes UN number; UN proper shipping name; transport hazard class; packing group; environmental; hazards; transport in bulk; special precautions which the user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises.
Section 15, Regulatory information Safety, health and environmental regulation specific for the product in question.
Section 16, Other information Includes the date of preparation or last revision.

SDS EXAMPLE

SAFETY DATA SHEET
Utrecht Gesso Painting Grounds

SDS 908.6

Section 1 – Company and Product Identification

Product Name: Utrecht Painting Grounds

Product Line: Utrecht Professional Acrylic Gesso
Utrecht Artists' Acrylic Gesso
Utrecht Studio Acrylic Gesso
Utrecht Artists' Acrylic Black Gesso
Utrecht Acrylic Sizing
See Appendix A for the item numbers and pigments of Utrecht Acrylic Gesso Painting Grounds.

Company: Utrecht Art Supply, 6b Fitzgerald Avenue, Monroe Township, NJ 08831.
Phone: 800-223-9132.

Section 2 – Hazard Identification (composition / information on ingredients)

OSHA GHS Classification (29 CFR 1910.1200 Hazard Communication Standards)

Signal Word – Warning (for titanium dioxide and carbon black; see "Composition of Pigments, page 5)

Hazard Statements - May be harmful if swallowed.

Hazard Categories – Not determined

Precautionary Statements – Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid breathing dust, spray, mist, or vapors. Use in a well-ventilated area. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Storage and Disposal – See Section 7 and 13.

Other Hazards – See Section 11 and 12.

Gesso Painting Grounds: Gesso's; Black Gesso; Acrylic Canvas Sizing
Safety Data Sheet

Formulation overview - Utrecht Acrylic Gesso Painting Grounds are formulated in an acrylic binder and contains pigments such as titanium dioxide and calcium carbonate.

The Consumer Product Safety Commission (CPSC) mandates the Labeling of Hazardous Art Materials Act (LHAMA) that all warnings & precautions are on the product labels if applicable.

Section 3 – Hazardous Component Information (hazard identification)

Appendix A lists Utrecht Acrylic Gesso Painting Grounds Toxicity. The Risk Characterization process is noted in the preamble to Appendix A. In general, there is low risk of toxicity from skin exposure. Some Grounds contain titanium dioxide and carbon black; these require a PROP65 label warning.

Section 4 – First Aid Measures

For over exposure, due to accidental ingestion or inhalation, treat symptomatically. Adverse effects from skin exposure, (the expected route of exposure in normal use), are not expected.

Inhalation	If person is showing adverse effects in situations where dust from residue ground is being generated or the product is being sprayed without respiratory protection, remove person to fresh air. Seek medical help if recovery is not immediate.
Ingestion	Treat symptomatically; do not induce vomiting; seek medical help.
Skin Contact	Wash skin with soap and water. If ground has dried, first scrape residue off with a stiff hand brush or other appropriate instrument.
Eye Contact	Flush eyes for up to 15 minutes with water; if irritation persists, seek medical help.

Section 5 – Fire Fighting Measures

Utrecht Acrylic Gesso Painting Grounds are water-based and are not flammable.

Flash point, ºC:	NA
Auto-ignition Temperature:	NA
Lower explosive limit:	NA
Upper explosive limit:	NA

Extinguishing media (general): Carbon dioxide, foam, dry chemical

Section 6 – Accidental Release Measures

Spill Procedure: Contain spillage; use dustless methods for cleanup.

Gesso Painting Grounds: Gesso's; Black Gesso; Acrylic Canvas Sizing
Safety Data Sheet

Section 7 – Handling and Storage

Store at room temperature (avoid freezing).
Do not contaminate food products.
Wash hands after use.
Avoid eye contact.

Section 8 – Exposure Control/Personal Protection

Normal usage of Utrecht Painting Grounds does not require special Personal Protection Equipment, (PPE). Disposable gloves are recommended to minimize skin contact.). Remove residues on hands by washing. Do not use solvents on skin. Do not sand previous paintings without respirator protection.

Section 9 – Physical/Chemical Properties

Utrecht Painting Grounds are acrylic-based formulations. Some include white or black pigments, (see Appendix A).

Section 10 – Stability and Reactivity

Utrecht Painting Grounds are considered stable and non-reactive.

Section 11 – Toxicology Information

Utrecht Painting Grounds have low toxicity. Grounds can be applied by brush, priming knife, or roller. Avoid inhalation exposure by wearing respiratory protection if previously applied dried Ground is sanded. Appendix A lists the Utrecht Acrylic Gesso Painting Grounds and their associated Color Index. In general, these Grounds are considered non-toxic at the anticipated levels of exposure, (i.e., skin exposure, generally restricted to the hands). Note the PROP65 warning based on titanium dioxide inhalation hazard.

Section 12 – Ecological Information

Toxicity to animals, fish and insects is not available.
Data on persistence, bioaccumulation potential and mobility in soil are not available.

Section 13 – Disposal Considerations

Under typical use situations, Utrecht Painting Grounds should be used up rather than disposed. Dispose of as a dry waste solid. Grounds are not considered hazardous waste.

Section 14 – Transport Information

No restrictive Department of Transportation requirements; not hazardous for shipping

Gesso Painting Grounds: Gesso's; Black Gesso; Acrylic Canvas Sizing
Safety Data Sheet

Section 15 – Regulatory Information

The U.S. Consumer Product Safety Commission (CPSC) is an independent regulatory agency charged with protecting the public from unreasonable risks of injury or death associated with consumer products. The CPSC requires labeling of art materials that have the potential to cause adverse chronic health effects under the Federal Hazardous Substances Act (FHSA). Specifically, an amendment to the FHSA, the Labeling of Hazardous Art Materials Act (Public Law 100-695) or "LHAMA" made mandatory many of the requirements of the labeling of art materials as set forth in the ASTM International (ASTM) standard designated D-4236-88 [U.S.C. 1277]. ASTM D-4236 outlines procedures for developing precautionary labels for art materials that have the potential to produce chronic adverse health effects [16 CFR §1500.14(b)(8)(i)].

Product labeling conforms to ASTM 4236.

Section 16 – Other Information

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Date of revision: March 7, 2017

Gesso Painting Grounds: Gesso's; Black Gesso; Acrylic Canvas Sizing
Safety Data Sheet

Appendix A: Product Identity and Primary Pigments (Color Index)

Product	Item Number	Size	Color Index
Acrylic Canvas Sizing	6326	Pint	NA (1)
Artists' Black Gesso	9004	Pint	PBk7, PBk9
	9006	Quart	
Artists' Gesso	9001	Pint	PW6, PW18
	9000	Gallon	
Professional Gesso	5202	Pint	PW6, PW18
	5102	Gallon	
Studio Series Acrylic Gesso	9007	Pint	NA (3) PW6, PW18
	9002	Gallon	

Composition of Components

Color Index	Pigment / component	CAS
NA (1)	Acrylic Polymer Emulsion	25852-37-3 1336-21-6 7732-16-5
NA (3)	Calcium carbonate	471-34-1
PBk7	Lamp black	1333-86-4
PBk9	Bone Black / Amorphous Charred-bone Carbon	8021-99-6
PW6	Titanium Dioxide	13463-67-7
PW18	Calcium Carbonate / Chalk	471-34-1

Pictograms and Hazards

Health Hazard

Carcinogen
Mutagenicity
Reproductive Toxicity
Respiratory Sensitizer
Target Organ Toxicity
Aspiration Toxicity

Flame

Flammables
Pyophorics
Self-Heating
Emits Flammable Gas
Self-Reactives
Organic Peroxides

Exclamation Mark

Irritant (skin and eye)
Skin Sensitizer
Acute Toxicity (harmful)
Narcotic Effects
Respiratory Tract Irritant
Hazadrous to Ozone Layer

Gas Cylinder

Gases Under Pressure

Corrosion

Skin Corrosion/Burns
Eye Damage
Corrosive to Metals

Exploding Bomb

Explosives
Self-Reactives
Organic Peroxides

Flame Over Circle

Oxidizers

Environment

Aquatic Toxicity

Skull and Crossbones

Acute Toxicity (fatal or toxic)

Hazardous Material Classification

Hazard Classification is the process of evaluating the full range of available scientific evidence to determine if a chemical is hazardous, as well as to identify the level of severity of the hazardous effect. The HCS (Hazardous Communication Standard) defines Hazard Class as the nature of a physical or health hazard, e.g., flammable solid, carcinogen, and acute toxicity. Hazard Category means the division of criteria within each hazard class. These categories compare hazard severity within a hazard class and should not be taken as a comparison of hazard categories more generally. That is, a chemical identified as a category 2 in the acute toxicity hazard class is not necessarily less toxic than a chemical assigned a category 1 of another hazard class. The hierarchy of the categories is only specific to the hazard class.

OSHA does not endorse any particular manufacturer's classification system over another or state which category is the most and least severe. Two examples of Hazardous Material classification are below.

Hazardous Material Identification System (HMIS)

The Hazardous Material Identification System (HMIS) is a numerical rating system that incorporates the use of labels with color developed by the American Coatings Association as a compliance aid for the OSHA Hazard Communication Standard. Chemical substances are rated for degree of HEALTH (blue bar), FLAMMABILITY (red bar), PHYSICAL HAZARD (orange bar), on a scale of 0 to 4. The white bar is used to indicate which PPE should be used when working with the material. PPE uses a letter coding system for this section.

Health (Blue Bar)

If present, the asterisk signifies a chronic health hazard, meaning that long-term exposure to the material could cause a health problem such as emphysema or kidney damage

Level 4 – Life-threatening, major or permanent damage may result from single or repeated overexposures.

Level 3 – Major injury likely unless prompt action is taken and medical treatment is given.

Level 2 – Temporary or minor injury may occur.

Level 1 – Irritation or minor reversible injury possible.

Level 0 – No significant risk to health.

Flammability (Red Bar)

Level 4 – Flammable gases or very volatile flammable liquids with flash points below 73°F (23°C) and boiling points below 100°F (38°C). Materials may ignite spontaneously with air.

Level 3 – Materials capable of ignition under almost all normal temperature conditions. Includes flammable liquids with flash points below 73°F (23°C) and boiling points above 100°F (38°C) as well as liquids with flash points between 73°F and 100°F.

Level 2 – Materials which must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at or above 100°F (38°C) but below 200°F (93°C).

Level 1 – Materials that must be preheated before ignition ill occur. Includes liquids, solids, and semi-solids having a flash point above 200°F (93°C).

Level 0 – Material that will not burn.

Physical Hazard (Orange Bar)

Level 4 – Materials that are readily capable of explosive water reaction, detonation or explosive decomposition, polymerization, or self-reaction at normal temperature and pressure.

Level 3 – Materials that may form explosive mixtures with water and are capable of detonation or explosive reaction in the presence of a strong initiating source. Materials may polymerize, decompose, self-react, or undergo other chemical change at normal temperature and pressure with moderate risk of explosion.

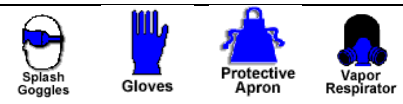
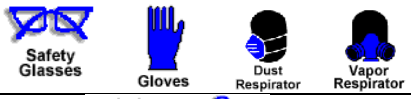
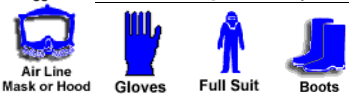
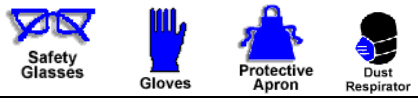
Level 2 – Materials that are unstable and may undergo violent chemical changes at normal temperature and pressure with low risk for explosion. Materials may react violently with water or form peroxides upon exposure to air.

Level 1 – Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.

Level 0 – Materials that are normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosives.

Personal Protective Equipment (PPE) (White Bar)

HMIS uses a letter code system in this section for the recommended PPE; however, this letters system may vary according to manufacturer and the conditions in which the chemical is being used.

A			G	
B			H	
C			I	
D			J	
E			K	
F			L-Z	Site-specific label. Ask your supervisor or safety specialist for handling instructions

Example:

Grumbacher Copal Painting Medium

National Fire Protection Association (NFPA) Rating System

The purpose of the NFPA rating is to advise emergency response personnel via the hazard diamond sticker of hazards they may encounter when entering the room in response to fire or other situations. Chemical substances are rated for degree of HEALTH RISK (blue diamond), FLAMMABILITY (red diamond), REACTIVITY (yellow diamond), on a scale of 0 to 4. The white diamond is used to indicate the presence of large quantities of chemicals possessing special hazards.

Health Risk (Blue Diamond)

Level 4 – Materials that can affect health or cause serious injury, during periods of very short exposure, even though prompt medical treatment is given.

Example: Hydrogen Cyanide

Level 3 – Materials that can affect health or cause serious injury, during periods of short exposure, even though prompt medical treatment is given.

Example: Chlorine Gas

Level 2 – Materials that can cause incapacitation or residual injury, during intense or continued exposure, unless prompt medical treatment is provided.

Example: Ammonia Gas

Level 1 – Materials that cause irritation upon exposure, but only minor injury is sustained even if no medical treatment is provided.

Example: Turpentine

Level 0 – Materials that offer no unusual hazards upon exposure to fire conditions.

Example: Peanut Oil

A chemical hazard rating at the highest level should be given to a room, unless chemicals are present in very small amounts or are present very infrequently.

Flammability (Red Diamond)

Level 4 – Materials that completely vaporize at normal pressure and temperature and burn readily.

Example: Propane Gas

Level 3 – Liquids and solids that can be ignited under the most ambient conditions.

Example: Gasoline

Level 2 – Materials that must be moderately heated before ignition can occur.

Example: Diesel Fuel

Level 1 – Materials that must be strongly heated before ignition will occur.

Example: Corn Oil

Level 0 – Materials that will not burn.

Example: Water

A chemical hazard rating at the highest level should be given to a room, if chemicals are present in five (5) gallons or more.

Reactivity (Yellow Diamond)

Level 4 – Materials that are easily capable of explosive decomposition at normal temperatures and pressure.

Example: Trinitrotoluene (TNT)

Level 3 – Materials that are easily capable of explosive decomposition, but require an ignition source or will react explosively with water.

Example: Fluorine Gas

Level 2 – Materials that easily undergo a violent reaction, but do not explosively decompose.

Example: Calcium Metal

Level 1 - Materials that are normally stable, but become explosive at elevated temperatures and pressure.

Example: Phosphorus (red of white)

Level 0 – Materials that are stable even under exposure to fire.

Example: Liquid Nitrogen

A chemical rating at the highest level should be given to a room if chemicals are present in quantities of five (5) gallons or more.

Special Hazard (White Diamond)

~~W~~ – Indicates unusual reactivity with water and is a caution about the use of water in either firefighting or spill control response.

Example: Magnesium Metal

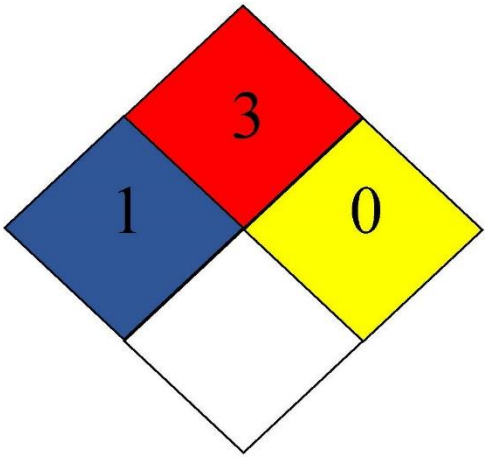
OX - Indicates that the material is an oxidizer.

Example: Ammonium Nitrate

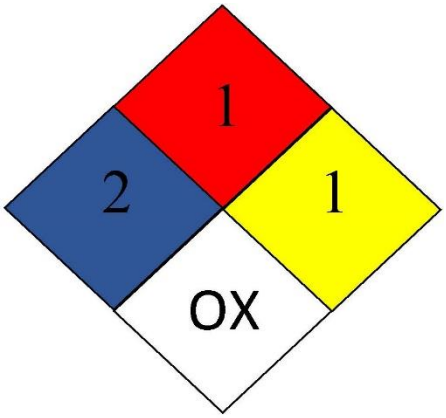
SA - Indicates that the material is a simple asphyxiant gas.

Examples: Nitrogen, Helium, Neon, Argon, Krypton, or Xenon

Examples:



TURPENTINE



AMMONIUM DICHROMATE

Proper Container Labeling

You should make every attempt to maintain original labeling whenever possible. In the event that you are not able to maintain the original labeling, all labels should contain the following information in clear, legible, type.

- Name of Product.
- Dilution or working solution ratio.
- Other hazard information as appropriate.

Also, any chemical stored at the College in a common storage area including the red fireproof cabinets found at the Clean-Up Stations must also contain the student's or department's name and the date the chemical was stored.

Storage of Chemicals

All chemicals must be stored in the original container or other appropriate container. Chemicals are not to be stored in soda bottles, cups, or other inappropriate containers.

All chemicals must be stored by compatibility. The red fireproof cabinets found with the Clean-Up Stations are to be used for storage of turpenoids, mineral spirits, and other flammable materials only.

Chemical Compatability

a. Reactives must be segregated from ignitables.
b. Acids must be separated from caustics.
c. Corrosives must be segregated from flammables.
d. Oxidizers must be segregated from everything.

Note: Ignitables = Combustibles or Flammables

Examples

Reactives	Ignitables/ Flammables	Acids	Caustics	Corrosives	Oxidizers
Peroxide	**Paint Thinner**	**Ferric Chloride**	**Drain Cleaner**	**All Acids**	**Ammonium Dichromate**
Hypochloride	**Acetone**	**Rust Remover***	**Rust Remover***	**All Caustics**	
Cyanides	**Kerosene**	**Hydrochloric Acid**			

Personal Protective Equipment (PPE)

Personal Protection

Faculty, staff, and students are required to use personal protective equipment (PPE) where appropriate. Each Department will identify protective equipment required for students in specific work areas using the checklist on need for PPE.

Eye and Face Protection:

Anyone, who is exposed to eye or face hazards from flying particles or liquid chemicals in work areas or studios, including visitors, must wear appropriate American National Standards Institute (ANSI) approved eye protection at all times. Standard prescription eyeglasses are not sufficient. Face shields and/or standing guards must be worn where face or neck protection is required. Safety glasses or safety goggles must also be worn when face shields are required.

Gloves:

Use a glove that is compatible (refer to appropriate SDS) with the material(s) in use. Remove gloves before leaving the work area or handling uncontaminated items (e.g. a doorknob or telephone receiver). Wash hands immediately after removing gloves. Clean or discard gloves immediately after use (consistent with use and contamination). Inspect gloves to assure the absence of wear, cracks or discoloration before use. **Do not use latex examination gloves in chemical use areas.**

Protective Clothing:

Chemical resistant aprons must be worn when handling concentrated chemicals or corrosive materials. Closed toe shoes must be worn is areas where objects may roll, fall unto, or strike your feet or when working with sharp object.

Respiratory Protection:

Every effort shall be made at the College to use the least hazardous chemical. Cartridge type respirators are not necessary with the types of chemicals and the engineering controls present at the College, however, particle masks should be worn whenever handling dry chemicals, aerosol products or activities that produce dust.

Hearing Protection:
Hearing protection shall be worn when noise level exposure is above 90 dBA or when noise level exposure is above 85 dBA during an 8 hour period.

PPE Pictograms:

CHECKLIST ON NEED FOR PPE			
SUGGESTED QUESTIONS	**TYPICAL OPERATIONS OF CONCERN**	**YES**	**NO**
EYES			
Do your students perform tasks, or work near students who perform tasks, that might produce airborne dust or flying particles?	Sawing, cutting, drilling, sanding, grinding, hammering, chopping, abrasive blasting, punch press operations, etc.		
Do your students handle, or work near students who handle, hazardous liquid chemicals?	Pouring, mixing, painting, cleaning, syphoning, dip tank operations, etc.		
Are your students eyes exposed to other potential physical or chemical irritants?	Battery charging, fiberglass insulation, compressed air or gas operations, etc.		
Are your students exposed to intense light or lasers?	Welding, cutting, laser operations, etc.		
FACE			
Do your students handle, or work near students who handle hazardous liquid chemicals?	Pouring, mixing, painting, cleaning, syphoning, dip tank operations, etc.		
Are your students faces exposed to extreme heat?	Welding, pouring molten metal, smithing, etc.		
Are your students faces exposed to other potential irritants?	Cutting, sanding, grinding, hammering, chopping, pouring, mixing, painting, cleaning, syphoning, etc.		
FEET			
Might tools, heavy equipment, or other objects roll, fall onto, or strike your students feet?	Construction, plumbing, smithing, building maintenance, trenching, utility work, grass cutting, etc.		
Do your students work with or near exposed electrical wiring or components?	Building maintenance; utility work; construction; wiring; work on or near communications, computer, or other high tech equipment; arc or resistance welding; etc.		
Do your students handle, or work near students who handle, molten metal?	Welding, foundry work, casting, smithing, etc.		

CHECKLIST ON NEED FOR PPE (Cont'd)			
SUGGESTED QUESTIONS	**TYPICAL OPERATIONS OF CONCERN**	**YES**	**NO**
HANDS			
Do your students' hands come into contact with tools or materials that might scrape, bruise, or cut?	Grinding, sanding, sawing, hammering, material handling, etc.		
Do your students handle chemicals that might irritate skin, or come into contact with blood?	Pouring, mixing, painting, cleaning, syphoning, dip tank operations, etc.		
Do work procedures require your students to place their hands and arms near extreme heat?	Welding, pouring molten metal, smithing, etc.		
Are your students' hands and arms placed near exposed electrical wiring or components?	Building maintenance; utility work; construction; wiring; work on or near communications, computer, or other high tech equipment; arc or resistance welding; etc.		
BODY			
Are your students' bodies exposed to irritating dust or chemical splashes?	Pouring, mixing, painting, cleaning, syphoning, dip tank operations, machining, sawing, battery charging, fiberglass insulation, compressed air or gas operations, etc.		
Are your students' bodies exposed to sharp or rough surfaces?	Cutting, grinding, sanding, sawing, glazing, material handling, etc.		
Are your students' bodies exposed to extreme heat?	Welding, pouring molten metal, smithing, etc.		
Are your students' bodies exposed to acids or other hazardous substances?	Pouring, mixing, painting, cleaning, syphoning, dip tank operations, etc.		
HEARING			
Are your students exposed to loud noise from machines, tools, music systems, etc.? 90 dBA or greater Or 85dBA during an 8-hour period	Machining, grinding, sanding, work near conveyors, pneumatic equipment, generators, ventilation fans, motors, punch and brake presses, etc.		

Work Area Engineering Controls

Ventilation:

General room ventilation patterns may not be altered by blocking room air supply grills or return duct grills or removing drop ceiling tiles. Local ventilation devices must only be used for the intended use.

Exhaust:

Exhaust systems shall be turned on whenever chemicals are being used or during activities that produce dust in the work area.

Spray Booth:

Spray media at the College may only be utilized in the spray booth located on the 2nd floor outside of room 205. This includes any aerosol paints, adhesives, fixatives, finishes, etc. Using these items in an unauthorized manner may not only affect your health, but the health of the rest of the college community especially those with respiratory issues. Remember to turn the spray booth fan on before spraying and wait at least 2 minutes after spraying before turning it off.

Area Specific Standard Operating Procedures

See Department Supervisor for Area Specific SOP's

Chemical Inventory

The College is required by law to produce and maintain a comprehensive chemical inventory of all chemicals stored on the premises. Chemical inventories are required at least annually and must be updated whenever a new chemical in brought in to any area within the college. A comprehensive inventory of all chemicals will be done each summer before the start of the fall semester. The master inventory list is maintained in the office of the Director of Physical Plant.

Syllabus

The following statement should be included in all syllabi:

Equipment/Material Lists & Safety Precautions:
All hazardous equipment and materials used in this course will be discussed and their safe usage demonstrated. Hazardous waste should be disposed of in accordance with College policies. Follow all posted safety precautions and warnings. Information on hazardous material/waste and Standard Operating Procedures can be found on the facility website at http://www2.pcad.edu/Facilities.

Spray Booth:
Spray media at PCA&D may only be utilized in the spray booth located on the 2nd floor outside of room 201. This includes any aerosol paints, adhesives, fixatives, finishes, etc. Using these items in an unauthorized manner may not only affect your health, but the health of the rest of the college community especially those with respiratory issues. Remember to turn the spray booth fan on before spraying and wait at least 2 minutes after spraying before turning it off.

Hazardous Waste Management and Satellite Accumulation Areas (SAA's)

Cleanup Stations and SAA's

Cleanup stations and SAA's are located in all appropriate studio and table top classrooms to be used for clean-up of paint and brushes per the procedures below and used to dispose of empty containers that contained paint, mineral spirits, turpenoids, paint thinners, etc.

Clean-Up Stations Procedures

1. The red fireproof cabinet is for storage of turpenoids, mineral spirits, and other flammable material only. Other materials are not to be stored in these cabinets.
2. All containers must be properly labeled.
3. Containers and cabinets must be closed when not in use.
4. Any materials left outside the cabinet or without a name and date will be promptly removed and discarded.
5. Cleaning of brushes;
    a. Pour a small amount of your clean-up material into one of the jars provided. Keep the jar in the drip trays in case of spillage.
    b. Wipe your brush with one of the rags provided.
    c. Clean out your brush in the jar.
    d. Wipe your brush with the rag.
    e. Dump contents of the clean-up jar into the gray collection bucket using the funnel. Make sure the bucket stays in the plastic tub.
    f. Notify the maintenance department for a replacement bucket before it is completely full. Dial extension 1023 and leave a message.
6. The rags provided are for paint clean up only. Soiled rags should be placed in the round red can. The rags will be picked up and replenished as necessary.
7. The plastic tub used for the gray bucket is the SAA and will also function as a collection point for any and all empty paint tubes or cans, empty turpenoid containers, etc. Do not place any of these containers in the trash cans!
8. The clean-up stations should also be used for clean-up of water-soluble, oil-based paint.

Paper Palettes

Paper palettes shall be disposed of as follows:

1. Wipe excess paint from paper palette with rag.
2. Place rag in red round bin.
3. Place paper palette in regular trash can.

Satellite Accumulation Areas

1. All empty paint, mineral spirits, turpenoids, thinner, spray cans, etc. containers that do not meet the RCRA definition of "empty" must be placed in the plastic tubs provided.
2. Since most, if not all, of the containers for the items mentioned above will not meet the RCRA definition of "empty" the following should be placed in the tub when you have used the last of the product.
    a. Paint Tubes
    b. Paint cans or jars
    c. Cans or Bottles that held;
        i. Turpenoids
        ii. Mineral Spirits
        iii. Paint Thinner
    d. Empty Spray Paint Cans
    e. Empty Fixative Cans
    f. Empty Spray Adhesive Cans

3. Paper towels, gloves, paper palettes, brushes, etc. shall be placed in the regular trash for disposal.

Clean-Up Sinks

1. Sinks may be used for clean-up of WATER BASED LATEX AND ACRYLIC PAINTS ONLY!
2. Please wipe brushes off before cleaning them in the sink.
3. Rinse and clean the sink after cleaning your brushes.
4. DO NOT store or place any chemicals or paint on the counter, in the sink, or under the sink.
5. DO NOT use the sinks for clean-up of oil-based paints, including water-soluble oil paint.

Universal Waste

Universal waste is hazardous waste that includes pesticides, batteries, mercury-containing items (i.e. thermometers), lamps, and electronic devices. These items need to be disposed of properly.

Batteries and compact fluorescent lights (CFL's) should be placed in the SAA's for disposal.
If you have any questions regarding the disposal of an item, please contact call the Physical Plant Office at extension 1002 or 1023 or email dfreiler@pcad.edu.

Chemical Spills

In the event of a chemical spill, prevent contact by students and faculty. Attempt to contain the spill if it does not endanger anyone. Contact the maintenance department 1002 or 1023 or the security desk 1060 to assist with clean-up. Evacuate the room and provide ventilation if necessary.

Hazardous Waste Disposal

Clean-Up Stations and Satellite Accumulation Areas (SAA's)

The Director of Physical Plant or designee will periodically, or as needed, empty SAA's and the chemical accumulation containers. The waste accumulated at the SAA's will be transported to the Central Accumulation Area on the lower level, sorted, and stored to await disposal. The Central Accumulation Area will also hold chemical waste and containers from physical plant maintenance operations as well. Disposal of empty containers and chemical waste collected will occur as needed, but at least annually.

All empty containers and chemical waste will be disposed of through a licensed hazardous waste disposal company. Shipment and disposal information from each shipment of hazardous waste will be logged in the "Hazardous Waste Disposal Log" and paperwork from each shipment, including certificates of disposal/destruction will be kept on file as well.

Universal Waste Disposal

Universal waste, spent and/or broken fluorescent bulbs, ballasts, batteries, computer monitors, etc., will be transported by IT and/or physical plant staff to the Central Accumulation Area and separated by waste type.

Disposal, using a licensed hazardous waste company or licensed recycler, of the above products will take place on an as needed basis, but at least annually. Shipment and/or disposal of universal waste will be recorded in the "Universal Waste Log" and paperwork from each shipment, including certificates of destruction/disposal, etc., will be kept on file as well.

Do's and Don'ts of Chemical Hygiene

Do's

1. Use clean-up sinks for clean-up of water-based latex and acrylic paints.

2. Use the clean-up stations for clean-up and disposal of all other paints and chemicals.

3. Wipe off all brushes before cleaning them in the clean-up sinks.

4. Rinse out the clean-up sinks after each use.

5. Use the red flammable storage cabinets for storage of turpenoids and mineral spirits. All turpenoids and mineral spirits must be stored in either the original container or an approved container.

6. If you are unsure of how to dispose of something please ask your instructor.

7. Make sure to dispose of all empty containers (paint, mineral spirits, turpenoids, etc.) in the Satellite Accumulation Areas.

Don'ts

1. Do not use the sinks for clean-up of oil-based paints of any kind.

2. Do not store or place any chemical or paint in, on, or under the sinks.

3. Do not leave the cap off any container.

4. Do not use empty food containers for storage of paint or chemicals.

5. Do not dispose of any container into the trash that does not meet the RCRA definition of empty.

Glossary

ACM	Asbestos Containing Material
AICUP	Association of Independent Colleges and Universities of Pennsylvania
ANSI	American National Standards Institute
AST	Above ground Storage Tank
CAA	Central Accumulation Area
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CESQG	Conditionally Exempt Small Quantity Generator
CFL	Compact Fluorescent Light
CWA	Clean Water Act
dBA	A-weighted decibels
DEP	Department of Environmental Protection (State)
EPA	Environmental Protection Agency (Federal)
EPCRA	Emergency Planning and Community Right to know Act
ESA	Endangered Species Act
FIFRA	Federal Insecticide Fungicide and Rodenticide Act
GHS	Global Harmonized System of Classification and Labeling of Chemicals
HCS	Hazard Communication Standard
HMIS	Hazardous Material Identification System
LBP	Lead-Based Paint
LQG	Large Quantity Generator
MSDS	Material Safety Data Sheet (old)
NEPA	National Environmental Policy Act
NFPA	National Fire Protection Association
OPA	Oil Pollution Act
OSHA	Occupational Health and Safety Administration
OX	Oxidizer
P2	Pollution Prevention Act
PCB	Polychlorinated biphenyls (waste)
PPE	Personal Protective Equipment
RCRA	Resource Conservation and Recovery Act
SA	Simple Asphyxiant
SAA	Satellite Accumulation Area
SARA	Superfund Amendments and Reauthorization Act
SDS	Safety Data Sheet
SDWA	Safe Drinking Water Act
SOP	Standard Operating Procedures
SPCC	Spill Prevention Control and Countermeasure
SQG	Small Quantity Generator
TCLP	Toxicity Characteristic Leaching Procedure
TSCA	Toxic Substances Control Act
UST	Underground Storage Tank
~~W~~	Water Reactive