



lara

IMPORTANT STUDENT
INFORMATION
SUMMER 2018 EDITION

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LARA- London Atelier of Representational Art Studio Safety Manual
Summer 2018 Edition

What is this safety manual about?

This safety manual informs you about the possible dangers you might encounter when working in the LARA Studios. It tells you how to protect yourself from these dangers by explaining the Art Studio's safety policies and safe operating procedures for the equipment and chemicals that you use. All studio users must adhere the policies and procedures explained in this manual, as well as the studio rules and follow the student charter. You must do this for your own protection and for the protection of others who use the studios. For more detailed information on safe art practices consult *The Artist's Complete Health and Safety Guide (third Edition)* by Monona Rossol, which is required reading for all LARA students. A copy is available to borrow from the school for a small deposit.

Key Words

MSDS. Material Safety Data Sheets are documents that are posted in the workplace that contain information on the safe handling and usage of chemicals and products.

Hazard. An occupational hazard is a thing or situation with the potential to harm a worker. Occupational hazards can be divided into two categories: safety hazards that physically injure workers, and health hazards, which result in the development of disease. It is important to note that a "hazard" only represents a potential to cause harm.

Risk. Risk is the way to rate hazards posed by materials or situations and their potential to cause harm. Risk is the probability, or chance, that it actually will harm someone.

TLV. Threshold Limit Value, for chemical substances is defined as a concentration in air, typically for inhalation or skin exposure. Its units are in ppm for gases and in mg/m³ for particulates (aerosols such as dust, fumes and mist).

Hazards in the Art Studios include:

- Hazardous Chemicals. Many forms of art making use potentially harmful chemicals like solvents and acids. These chemicals can damage lungs, eyes, skin and other parts of the body.
- Hazardous Substances. Dusts, fumes, and other materials can poison workers, damage lungs, eyes and other parts of the body.
- Material Handling. Carry or moving easels.
- Electricity. Damaged electrical cords or power tools can cause shocks.

Section 1: General Safety Rules

Please Note: All safety rules MUST be followed. People who ignore the rules may lose Studio access.

Rule 1: The following must be strictly observed before entering the cast rooms and any room in which painting is taking place:

1. EATING AND DRINKING IS STRICTLY PROHIBITED.
2. SMOKING IN ALL STUDIO FACILITIES IS STRICTLY PROHIBITED.

Rule 2: Get to Know the Studios.

- Familiarize yourself with the location of fire exits, fire extinguishers and first aid kits.
- Read and familiarize yourself with the Material Safety Data Sheets (MSDS) provided for all chemicals you will use.
- Read and familiarize yourself with the posted Studio Disposal Policy. This policy must be followed at all times. **DO NOT POUR SOLVENTS, PAINTS OR ACIDS DOWN SINKS.**
- Read and familiarize yourself with all the posted Safe Operating Procedures for the equipment and chemicals you will be using.
- When in doubt ask your tutor for assistance.

Rule 3: Wear Appropriate Clothing.

LARA recommends that an apron or overall should be used when using chemicals and painting.

Rule 4: Music and headphones:

Headphones cannot be used while handling chemicals. You must be aware of your surroundings for the safety of yourself and others. It is up to individual tutors whether they allow students to listen to music during class time.

Rule 5: Good Housekeeping

Good housekeeping is essential for studio safety.

- All work must be properly stored after each work session so as not to disrupt the everyday workings of the Studio environment. Remember, Studios are a communal space and scheduled classes take precedent over individual work.
- Keep the floors clear of any obstructions that could trip people up. Keep floors free from grease, soap, water, fine dust, or anything else that could create a slip hazard.
- Return all tools and equipment to their proper storage place after each use.
- Keep all artwork and materials stored when not in use. Make sure there are no protruding corners that can catch people as they walk by.
- Please take all artwork and materials home with you at the end of each term. The studio does not accept any liability for damage that may happen to artworks left in the studio during the holiday periods.
- All flammable substances **MUST** be stored in properly labeled sealed containers in a flammable cabinet when not in use.
- All solvent soaked rags must be disposed of in yellow or red Hazardous Material Containers. **DO NOT** throw paper towels or other paper products into these bins as it creates a potential fire hazard. Solvent soaked rags are highly flammable.

After class hours, all doors giving access to studios must remain locked and closed. All doors must be secure at all times. All exits must be clear of debris, and fire exit doors and corridors cannot be blocked. You should always wash your hands with soap and water before leaving the studios. Never eat, drink or use the washroom with ink, paint, plaster or any other type of art material on your hands.

LOOK AROUND BEFORE LEAVING THE STUDIOS, MAKE SURE THAT YOU HAVE PUT ALL YOUR THINGS AWAY AND LEFT THE SPACE CLEAN AND TIDY FOR THE NEXT PERSON. IF YOU DO NOT KEEP YOUR WORK AREA CLEAN AND TIDY YOU MAY LOSE YOUR PRIVILEGE TO USE THE ART STUDIOS.

Rule 6: Reporting and Avoiding Accidents.

Accidents do happen, but all accidents, incidents and injuries no matter how minor must be reported to the office immediately so they can be recorded and first aid given, if necessary.

Report any hazards to your tutor or the office immediately so accidents can be prevented.

These could include:

- Slippery floors, Broken or dull tools, Faulty or frayed electrical cords on power tools or extension cords, Chemical spills, People using unsafe practices or procedures, Obstructions or tripping hazards, improperly stored chemicals, Injuries, no matter how minor, near misses (If it happened to you the next person might not be so lucky)

- It is against the law for students to misuse anything provided in the studios for the means of health and safety. This includes but is not limited to: defacing or destroying signage, abuse of fire equipment and blocking fire exits.

Checklist: General Safety Rules

- Do I know where the exits, and fire extinguishers are?
- Have I read and understood the Safe Operating procedure for what I am about to do?
- Do I have a buddy for working after hours?
- Have I cleaned up my work area, cleaned, and put away all the tools I was using?
- Are there any questions that I should ask my tutor?

Safety While Painting in The Studio:

General Precautions:

- Read and follow all MSDS for materials and chemicals you use.
- Substitute safer alternatives when possible.
- Follow all clean-up and disposal policies.
- Students MUST provide the studio with a current MSDS for any potential material or substances that are not on file. This must be done prior to the use of the product.
- Always wear the appropriate Personal Protective Equipment required by the MSDS.
- Don't wear contact lenses while painting; they can hold harmful chemical splashes against your eyes.
- Never eat, drink or smoke while painting.

Oil Painting:

In oil painting, students work from tube oil paints and use solvents for thinning paint, in mediums and in cleanup. Pigments are suspended in the oil and many pigments are toxic, including those based on lead, cadmium, mercury, chromates, manganese and cobalt. The main risk is from accidental ingestion of the pigments from hand to mouth contact. Simple precautions, good personal hygiene and common sense can eliminate the risk.

Solvent use in oil painting is a serious hazard. During a four-hour class period, a student might have a half a cup (125 ml) of solvent in an uncovered container and approximately one quarter to half of this will evaporate from the container or be used.

All solvents can cause dermatitis and defatting of the skin from prolonged or repeated exposure and can cause skin allergies. Acute inhalation of high concentrations of turpentine or mineral spirits can cause respiratory irritation and narcosis (dizziness, nausea, fatigue, loss of coordination, coma, etc.).

Chronic inhalation of turpentine can cause kidney damage and respiratory allergies. Chronic inhalation of large amounts of mineral spirits could cause brain damage. Although odorless mineral spirits have had the aromatic hydrocarbons removed, and are less hazardous, to inhale, ingestion of either turpentine or mineral spirits can be fatal.

Hazards:

- Accidental ingestion and skin contact of hazardous pigments
- Inhalation and skin contact with solvents such as turpentine, and odorless mineral spirits.

Precautions:

- See pigment hazards.
- Read and follow posted Solvent Usage and Solvent Recycling Safe Operating Procedures.
- Read and follow posted Oil Paint Cleaning Procedures to limit the amount of solvent you are using.
- Avoid skin contact with pigments and solvents.
- If you are sensitive to solvents and pigments, wear solvent resistant gloves, barrier cream or substitute non-solvent painting process.
- It is advisable to wear an apron, smock or coveralls while painting to avoid contaminating clothes with pigment and solvents.

Safety in Painting

- Practice good personal hygiene and always wash your hands before leaving the painting studio to avoid contamination.
- Practice solvent recycling to limit need for storage and disposal of large amounts of solvents.
- Properly label and store all hazardous materials.
- Avoid using the most toxic pigments: lead white or flake white, the arsenic variety of cobalt violet, true vermilion (mercuric sulfide) and chrome yellow (lead chromate).
- For thinning solvents, use an odorless paint thinner (Sansador) rather than the more toxic turpentine
- Cover all open containers of solvent with aluminum foil wrapped around the brushes and top of container when taking breaks to limit the evaporation of the solvent into the studio and to avoid spillage
- Place waste solvent in approved red solvent waste cans and close all containers used for solvent recycling when not being used.
- Use baby oil for cleaning brushes, hands and palettes.

Water Based Paints:

Water-based paints include watercolor, acrylic, gouache, tempera and water based oil paints.

Hazards:

- See pigment hazards.
- Acrylic paints contain a small amount of ammonia and it can be an eye, nose and throat irritant in some people.
- Acrylics and some gouaches contain a small amount of formaldehyde as a preservative and people already sensitized to formaldehyde can experience allergic reactions from the formaldehyde.
- All water-based paints contain a preservative to prevent mold and bacterial growth. Although present in small amounts, certain preservatives may cause allergic reactions in some people.

Precautions:

- Avoid contact with skin.
- Avoid using dry powdered pigments.
- It is advisable to wear an apron, smock or overalls to avoid contaminating clothes with pigment and solvents.
- Practice good personal hygiene and always wash your hands before leaving the painting studio to avoid contamination.

Spray Painting and Spray Fixatives:

Note: Students **MUST** consult your Tutor before using spray materials, safer substitutions will be recommended. The Studio discourages using aerosol spray cans because of the hazards involved. Aerosol spray products often contain the most toxic solvents and particles are suspended in the air for long periods of time.

Hazards:

- See pigment hazards.
- If the spray paint contains solvents, you can inhale liquid droplets of the solvents.
- The pigments in spray paint are easily inhaled, creating a more dangerous situation than if applying paint by brush.
- Aerosol spray cans contain propellants (usually isobutanes and propane) which are present as extremely flammable vapours. Aerosol spray products such as, spray varnishes, fixatives, etc. also contain solvents, propellants and particulates.
- Spray adhesives are particularly hazardous as the particulates are large and can be irritants to eyes and skin.
- Over exposure to these products can cause respiratory tract damage and central nervous system depression.
- LARA recommends all spray cans are only used outdoors - outside of the studio.

Precautions:

- Read MSDS and safety warnings on the product you are using.

- See section below for precautions with pigments. Always substitute safer practices when possible such as brush applications rather than spraying.
 - All spray aerosol applications must occur **outside** away from the exit doors.
 - Wear coveralls or an apron to protect clothes from overspray and from becoming saturated with propellant if spraying for extended periods of time.
 - Never smoke, eat or drink when applying aerosol spray products.
- Please note that this also includes hairspray.

Pigment Hazards

Known or Probable Carcinogens/Highly Toxic Pigments:

antimony white (antimony trioxide)
 barium yellow (barium chromate)
 burnt umber or raw umber (iron oxides, manganese silicates or dioxide)
 cadmium red or orange (cadmium sulfide, cadmium selenide)
 cadmium yellow (cadmium sulfide)
 cadmium barium colors (cadmium colors and barium sulfate)
 cadmium barium yellow (cadmium sulfide, cadmium selenide, barium sulfate, zinc sulfide)
 chrome green (Prussian blue, lead chromate)
 chrome orange (basic lead carbonate)
 chrome yellow (lead chromate)
 cobalt violet (cobalt arsenate or cobalt phosphate)
 cobalt yellow (potassium cobalt nitrate)
 lead or flake white (basic lead carbonate)
 lithol red (sodium, barium and calcium salts of soluble azo pigment)
 manganese violet (manganese ammonium pyrophosphate)
 molybdate orange (lead chromate, lead molybdate, lead sulfate)
 naples yellow (lead antimonate)
 strontium yellow (strontium chromate)
 vermilion (mercuric sulfide)
 zinc sulfide
 zinc yellow (zinc chromate)

Moderately Toxic Pigments:

alizarin crimson (flakes of 1,2-dihydroxyanthraquinone or insoluble anthraquinone pigment)
 carbon black (carbon)
 cerulean blue (cobalt stannate)
 cobalt blue (cobalt stannate)
 cobalt green (calcined cobalt, zinc and aluminum oxides)
 chromium oxide green (chromic oxide)
 manganese blue (barium manganate, barium sulfate)
 prussian blue (ferric ferrocyanide)
 toluidine red (insoluble azo pigment)
 toluidine yellow (insoluble azo pigment)
 viridian (hydrated chromic oxide)
 zinc white (zinc oxide) 7

Pigments:

Pigments are used in all types of paint; oil paints, acrylics, watercolors, gouache, encaustic, poster paints, casein paints and tempera and in commercial paints such as oil enamel, epoxy and automobile paints.

Paints are pigments mixed with a vehicle or binder. Both inorganic and organic pigments are used as colorants. Dry pigments are especially hazardous because they are easily inhaled and ingested.

The term “hue on paint labels refers to a colour mixture that approximates a traditional colour. Cadmium Hue therefore may not contain any cadmium. Read labels carefully when purchasing paints.

Hazards:

- Poisoning can occur if toxic pigments are inhaled or ingested. The main hazard in standard painting techniques is accidental ingestion of pigments due to inadvertent hand to mouth contact. If methods such as spraying, heating, or sanding are employed then there is an opportunity for inhalation of toxic pigments.
- Exposure to toxic pigments, the classic example of a toxic inorganic pigment in painting is white lead, or flake white (basic lead carbonate). Lead pigments can cause anemia, gastrointestinal problems, peripheral nerve damage (and brain damage in children), kidney damage and reproductive system damage. Other inorganic pigments may be hazardous; including pigments based on cobalt, cadmium, and manganese.
- Some of the inorganic pigments, in particular cadmium pigments, chrome yellow and zinc yellow may cause lung cancer. In addition, lampblack and carbon black may contain impurities that can cause skin cancer.
- Chromate pigments (chrome yellow and zinc yellow) may cause skin ulceration and allergic skin reactions (such as rashes).
- The long-term hazards of the modern synthetic organic pigments have not been well studied.

Precautions:

- Obtain MSDSs on your paints to find out what pigments you are using. This is especially important because the name that appears on the tube of color may or may not truly represent the pigments present. Manufacturers may keep the name of a color while reformulating the ingredients.
- Use the least toxic pigments possible. Do not use lead or carcinogenic pigments.
- Avoid mixing dry pigments whenever possible.
- DO NOT use dishes, containers or utensils to mix and store paints and pigments.
- Never heat, sand or burn pigments.
- Practice good personal hygiene and always wash your hands after handling pigments and paints.

Easels:

Hazards:

- Pinching of fingers
- Danger from falling objects/paintings

Precautions:

- Always be aware of hand placement when stacking easels to ensure fingers do not get pinched between two easels.
- Always ensure sliders are tight before placing paintings or drawing boards on them.

- Never stand on an easel, they can become unstable and you could fall off or injury others around you.

Checklist: Painting Safety

Have I read the MSDS for the pigments and solvents I will using?

Am I following safe practices for disposal, storage and clean up of my materials and painting supplies?

Have I consulted with my tutor on any new processes I am using?

Have I considered safer substitutes for the chemicals I am using?

Am I practicing good personal hygiene to limit skin contact of pigment and solvents?

Do I have clean up materials on hand before I begin painting?

Are there any questions that I should ask my tutors?

Dry Drawing Media:

Art students use a broad range of dry drawing media including charcoal, chalk pastels, oil pastels, graphite sticks and pencils.

Hazards:

- Pencils are made with graphite, rather than lead and as such not considered a hazard.
- Colored pencils (pencil crayons) have pigments added to the graphite, but the amounts are small so that there is no significant risk of exposure
- Compressed charcoal sticks use various resins in a binder to create the color.
- Charcoal and coloured chalks can create nuisance dusts; however, inhalation of large amounts of dust can create chronic lung problems through a mechanical irritation and clogging effect.
- Colored chalks create nuisance dusts.
- Individuals who have asthma can sometimes have the condition exacerbated by dusty chalks and charcoal, but this is a nonspecific dust reaction, not a toxic reaction.
- Pastels can contain toxic pigments such as chrome yellow (lead chromate) which can cause lung cancer, and cadmium pigments (which can cause kidney and lung damage and are suspected human carcinogens).
- Oil pastels can contain toxic pigments, but this is only a hazard by accidental ingestion.
- Both permanent and workable spray fixatives contain toxic solvents and plastic particulates that can be inhaled while spraying

Precautions:

- Use the least dusty types of pastels, chalks, etc. Asthmatics in particular might want to switch to oil pastels or similar non-dusty media.
- Don't blow off excess pastel or charcoal dust with your mouth it can lead to accidental inhalation. Instead, tap off the built up dust so it falls to a plastic lined trash can.
- Wet-mop and wet-wipe all surfaces clean of dusts do not sweep up dusts as they can get back into the air.

Liquid Drawing Media:

Art students use a broad range of liquid drawing media including water-based and solvent-based pen and ink and felt tip markers.

Hazards:

- Drawing inks are usually water-based, but there are that are some solvent-based
- Permanent felt tip markers used in design or graphic arts contain solvents. Xylene, which is a toxic aromatic hydrocarbon, is the most common ingredient; newer brands often contain the less toxic propyl alcohol (although it is an eye, nose and throat irritant).
- Water-based markers do not have an inhalation hazard although there is concern about the dyes used in these and in permanent markers

Precautions:

- Use water-based markers and drawing inks if possible.
- Alcohol-based markers are less toxic than solvent-based markers.

Safety in Drawing

Always use the least hazardous materials that you can.

- Solvent-based drawing inks and permanent markers should be used with good dilution ventilation.
- Never paint on the body with markers or drawing inks.

Drawing Boards:**Hazards:**

- Splinter and cuts from wood
- Pinching of fingers
- Danger from falling objects

Precautions:

- Always ensure easel sliders are tight before placing drawing boards on them.

Checklist: Drawing Safety

Have I read and understood the MSDS for the materials I am using?

Do I know the proper clean-up procedures for dry and liquid drawing media?

Have I washed my hands before leaving the studio after handling drawing media?

Are there any questions that I should ask my tutor?

STUDIO ART STUDENT WORKING AFTER HOURS POLICY
LARA LONDON ATELIER OF REPRESENTATIONAL ART
AFTER HOURS ACCESS IS A PRIVILEGE GRANTED TO STUDIO STUDENTS.

- The Studios are open from 9am until 5pm daily. Students are not permitted to work in the studios outside of these hours unless with permission.
- Upon the close of the studios, the academic staff will conduct a complete walkthrough to ensure all students have left the area.

- Students **MUST** use the “Buddy System” when working in the Studios after hours. Students cannot work alone. The “Buddy” must be a current LARA student. Once your “buddy” leaves, you must leave. Plan your projects and work accordingly.
- Students cannot use chemicals or equipment they have not been properly trained to use from a Tutor after hours.
- Students **MUST** adhere to all posted policies, regulations and Safe Operating procedures when working after hours.
- Only authorized students are allowed in the studios after hours.
- In case of emergency, call 999.

SOLVENT USAGE POLICY
LARA LONDON ATELIER OF REPRESENTATIONAL ART

Introduction:

Solvent use presents one of the most common hazards in the art studios. They are used in all media areas as thinners, cleaners and mediums and they present risks of inhalation, absorption and fire. In most instances, safer, low-risk solvents can be substituted for more hazardous ones and small quantities are adequate to do the job. In order to minimize the risk involved in solvent use the school have developed a policy for use of solvents in the art studios. In choosing approved solvents LARA looked at the following criteria.

- A high flash point
- A low evaporation rate
- A high TLV (concentration of parts per million that can be breathed for an extended period without adverse effects)
- Low toxicity (such as removal of aromatic hydrocarbons)

1. After hours use of solvents is restricted to Odorless Paint Thinners in amounts 3/4 cup (175 ml) or less.
2. Any other solvent use is restricted to supervised hours when the tutors are available. Students must seek approval from the tutor and provide a Material Safety Data Sheet on the product that they are seeking approval for.
3. Alternative products such as baby oil must be used for clean up of hands, palettes, ink slabs and brushes.
4. All solvents must be stored in properly labeled containers in the yellow flammable storage cabinets.
5. All solvents and rags must be disposed of in flammable waste containers.
6. Never work with a solvent next to a source of heat or spark.
7. When in doubt **STOP** and ask for assistance.

LARA LONDON ATELIER OF REPRESENTATIONAL ART DISPOSAL POLICY

1. **WASTE SOLVENTS** are to be taken home. **DO NOT POUR SOLVENTS DOWN SINKS**
2. **SOLVENT SOAKED RAGS** are to be placed in yellow or red oily waste receptacles (hazardous material containers).
3. **METALS** should be placed in the bins in a manner that does not impede the use of the studio or create safety hazards, for recycling.
4. **WOOD** should be free of nails, screws or other foreign objects and be placed in the usual bins.
5. **GENERAL RUBBISH** should be disposed of in appropriate trash containers located in the studios. Clean your area after each work session and please don't place liquids into the bins.
6. **HAZARDOUS WASTE** should be reported to your tutor for proper disposal procedures. See MSDS binders in the studio for definition and handling of hazardous wastes.
7. **BROKEN GLASS** cannot be thrown out into regular garbage, this is a serious safety hazard. Collect all broken glass into a cardboard box and report it to the the office for proper disposal.