

The Household Toxic Tour: Hobby Room

Dangerous chemicals and metals include:

- lead in some ceramic glazes, stained-glass materials, and many pigments affects almost every organ and system in your body, especially the central nervous system. Painted or treated wood, and paper printed with some coloured inks, may contain lead or other chemicals. Do not burn these items in a fireplace or woodstove, as this might release lead fumes. Some materials used in crafts and hobbies may contain lead or other hazardous materials. Those involved in oil painting, stained glass, automotive repair, furniture refinishing, and electronics. It caused damage to the kidneys and the reproductive system. The effects are the same whether it is breathed or swallowed. Almost all symptoms of Attention Deficit Disorder (ADD) are the same as the symptoms of lead poisoning. (Source: [Lead in your home](#))
- Cadmium in silver solders, pigments, ceramic glazes and fluxes causes severe damages to the lungs and can even cause death. Long-term exposure to lower levels of cadmium in air, food, or water leads to a build-up of cadmium in the kidneys and possible kidney disease. Other long-term effects are lung damage and fragile bones.
- manganese dioxide in ceramic colours and some brown oil and acrylic paint pigments causes impairment of the central nervous system and breathing this chemical causes lung damage.;
- Cobalt in some blue oil and acrylic paint pigments causes effects on the lungs, asthma, pneumonia, and wheezing;
- formaldehyde (cancer-causing) as a preservation in many acrylic paints and photographic products;
- aromatic hydrocarbons in paint and varnish removers, aerosol sprays, permanent markers, etc. can cause severe irritation, redness, tearing, blurred vision as well as nasal and respiratory irritation, dizziness, weakness, fatigue, nausea, headache, possible unconsciousness, central nervous system depression, and even suffocation.;
- chlorinated hydrocarbons (such as tetrachloroethane (acetylene tetrachloride), chloroform, ethylene dichloride, perchloroethylene and trichloroethylene) in ink, varnish, and paint removers, rubber cement, aerosol sprays dissolves the fatty layer of the skin and can cause dermatitis, heart failure, death and suffocation;
- petroleum distillates (solvents) in paint and rubber cement thinners, spray adhesives, silk-screen inks cause damage to the nervous system, skin, kidneys, and eyes. They are likely to cause one or more detrimental health or environmental effects;
- glycol ethers and acetates in photography products, lacquer thinners, paints, and aerosol sprays.



Methyl cellosolve (ethylene glycol monomethyl ether) and butyl cellosolve (ethylene glycol monobutyl ether) were known to cause anaemia and kidney damage. Cellosolve, methyl



cellosolve, and their acetates can cause birth defects, miscarriages, testicular atrophy and sterility at low levels.

Safe Substitutes for Art and Hobby Materials

There are some non-toxic choices that can be made when buying art or craft supplies, but because some techniques require certain materials, minimizing exposure may be the best you can do.



In painting and printmaking, ready-mixed water-based paints or inks can be used. If you must be exposed to paint dust, use toxic dust respirator approved by the United States National Institute for Occupational Safety and Health (NIOSH). Ventilate the space thoroughly whenever using any kind of solvents, whether in painting or in lithography, intaglio, or photo etching. Solvents also should be avoided while pregnant. Store hobby and craft materials in a tightly closed container. Clean up your work area thoroughly afterwards, and be sure to wash your hands well, too. Don't work near areas where food is prepared or served. Don't eat while you're working. Avoid working near children. Wash work clothes separately.

Enamels are usually lead-based, and can contain other toxic metals such as cadmium and nickel. Use lead-free-enamels whenever possible, and make sure kilns are vented outside.

In pottery as well, outside vented kilns are important, as is a careful choice of materials. Most potters know to avoid lead glazes and lead frits, but many don't know that flint, feldspars, fluorspar, and some compounds containing barium, lithium, manganese, or nickel can also be toxic. Children should avoid the pottery studio, as they are more susceptible to the toxics used in pottery than are adults.



Photography presents a number of toxic hazards, which are difficult to avoid. Minimize exposure to photochemical by using gloves, mixing chemicals in a mixing box with holes in the sides for gloved hands, and providing adequate ventilation. Children under 12 should avoid the darkroom.