FACTS:

- Beeswax melts at 145°F, with Damar resin added, about 155° F.
- Maximum work temp for safely heating beeswax is 200° F.
- Plate surface temperature range for encaustic printmaking is 160-190° F. The Hotbox surface can heat up higher, to approx 215°F.
- Most encaustic painting takes place around 200° F
- Beeswax combusts at 468 °F
- We suggest wearing gloves, although it is thought that the pigment cannot pass through the skin.
- At least wear liquid gloves, or gloves when using cadmium and cobalt colors—just to be safe.
- Over 250 °F wax begins to smoke, smell acrid, and is very toxic.

Ventilate your studio

- If possible, place your pallet near the exhaust fan.
- Create a good exchange of air in the room.
- You may improvise with a couple of good box fans, facing out a window. Seal around the fan with cardboard or Plexiglas to create a good draw.
- Stand where fumes are pulled away from you rather than being drawn into your face. This is very uncommon but wax fumes can irritate some people.
- With adequate ventilation and proper working temperatures (between 180 and 200°F), encaustic is non-toxic.
- In many studios, working next to a window exhaust fan and having a source of fresh air coming in from another part of the studio, gets rid of fumes adequately.
- It is important to create cross-ventilation in your workspace, because even at recommended working temperatures, wax fumes can be irritants, causing headaches and coughing.
- At higher temperatures, wax fumes become more and more concentrated, and therefore more harmful, at higher temperatures. We recommend using a thermometer and working within a safe temperature of 180-200°F.
- Warning signs that your wax is too hot include an acrid odor and smoking.
- Note the temperature of wax within pans and pots is likely lower than the appliances temp dial. Use an infrared thermometer to measure molten wax.

For information about Venting Your Studio please read this PDF Download from R&F.

EQUIPMENT:

- The surface of the HOTbox rarely reaches above 215, whereas griddles and
- hotplates can reach temperatures that are dangerous with wax.
- Do not leave HotBox on unattended! Inspect cords regularly.
- Wipe excess melted encaustic from the surface of the hotbox, or any pallet, to cut down on fumes.

Heat gun—Extreme temperature of the air and metal tip can cause severe burns. At the end of the day, remove the torch head from the canister.
Mini torch—Always turn off torch before setting it down. Tip becomes very hot. Careful fusing collages.

Making your own encaustic?

- The only truly safe way to make encaustic paint with dry powder pigment is to use a Glove Box.
- Always use the proper NIOSH approved “particulate” respirator if using dry pigment, and wear disposable gloves. (It is safe to use oil paint to color your encaustic because pigments are not airborne.)
- We do not allow the use of dry pigments in our workshops.
- Don’t smoke or eat/drink in the studio. Wash hands before eating.
- Some older recipes for making encaustic call for Damar varnish. Do not use this, unless you are prepared to wear a vapor dual cartridge mask while you work. Varnish contains a solvent and solvents are extremely toxic to heat. I suggest that you never heat a solvent! Instead of Damar varnish, use Damar resin crystals with your beeswax to make it harder and raise the melting temperature… but ventilate very well while heating!
- Keep your work area free of anything that could catch fire
- Do not assume that this document tells you everything that you need to know! Educate yourself. Keep up with new developments. Follow manufacturers’ instructions with all products.
- Additional information about health, safety and studio ventilation may be found on the internet.