



**Art Safety
Training
Guide**

**SECTION 10: Painting and
Drawing**

Water-Based Paints

Water-based paints include water color, acrylic, gouache, tempera and casein. Water is used for thinning and cleanup.

Hazards

1. See section above for pigment hazards.
2. Acrylic paints contain a small amount of ammonia. Some sensitive people may experience eye, nose and throat irritation from the ammonia. Acrylics and some gouaches contain a very small amount of formaldehyde as a preservative. Only people already sensitized to formaldehyde would experience allergic reactions from the trace amount of formaldehyde found in acrylics. The amounts can vary from manufacturer to manufacturer.
3. Casein paints use the protein casein as a binder. While soluble forms are available, casein can be dissolved in ammonium hydroxide which is moderately irritating by skin contact and highly irritating by eye contact, ingestion, and inhalation.
4. All water-based paints contain a preservative to prevent mold or bacterial growth. Sometimes artists add preservatives when they make their own paints. Although present in small amounts, certain preservatives may cause allergic reactions in some people.

Precautions

1. See section above for precautions when mixing dry pigments.
2. If you add your own preservative, avoid using sodium fluoride, phenol or mercury compounds. For tempera, a small amount of pine oil works for short periods of time.
3. If you experience eye, nose or throat irritation while using acrylics, opening a window is usually sufficient; if not try a window exhaust fan.
4. If you mix casein paints using ammonium hydroxide, you will need a window exhaust fan to provide ventilation.
5. Wear gloves, goggles and protective apron when handling ammonia. An eyewash fountain should be available when handling ammonia.