

## Introduction

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



## CHEMICAL HAZARDS:

### Watercolors and Gouache:

Watercolors (dry cakes) are composed of pigments, preservatives (often paraformaldehyde) and binders such as gum arabic or gum tragacanth. Liquid watercolors may also contain water, glycerin, glucose, and other materials. Both liquid and dry watercolors may give off small amounts of formaldehyde, but generally need no exhaust ventilation.

Gouache is an opaque watercolor which contains pigments, gums, water, preservatives, glycerin, opacifiers and other ingredients. The opacifiers may be chalk, talc, or other substances. Formaldehyde may be used as a preservative.

### Acrylic paints:

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.

Acrylic paints (Water-Based Emulsions) are composed of synthetic acrylic resins and pigments with many additives usually including an ammonia-containing-stabilizer and formaldehyde preservative. The small amounts of ammonia and formaldehyde released during drying can cause respiratory irritation and allergies.

Acrylic Paints (**Solvent-Based**) are synthetic acrylic resins and pigments dissolved in solvents. The solvents should be identified and ventilation sufficient to keep the solvent's concentration at a safe level should be provided. The waste generated from solvent based paints should be handled the same as oil-based paints. (See oil-based paint guidance).

Casein Paints:

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.

Waste Issues



Waste tubes of paint are to be placed in the container for waste tubes. Potential environmental hazards include Cadmium, Chromium, Copper, Nickel, and Zinc.



Waste rags generated during paint removal process must be placed into the designated container. Please do not use paper. Paper is an automatic dangerous waste. A cleaning service will pick up used rags for processing.

Wastewater from the first and second brush wash is to be poured from the wash container into the supplied drum. Replace the cap when done. See Below.



Wash the brush in a small container with water



Pour the wash water into the provided drum

**Note on drum filling.** Do not mix Water Based Wash Water with Oil Based Paint Wash Water. Drums are considered full when there is two inches of space left in the drum. Don not overfill the drums.



Replace the Cap and tighten.

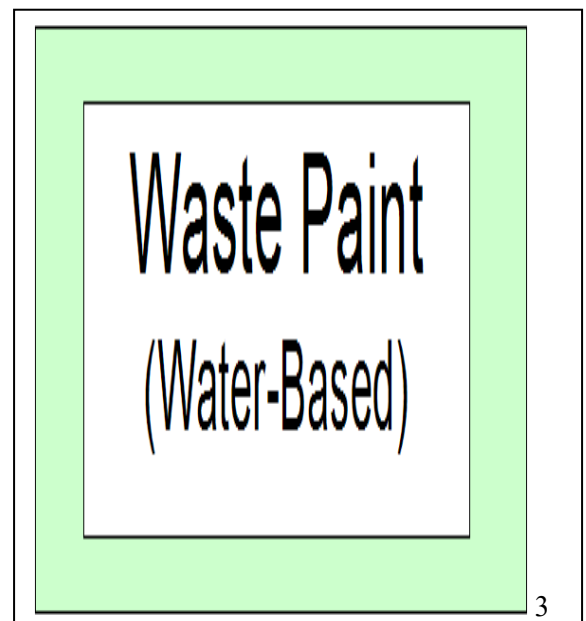
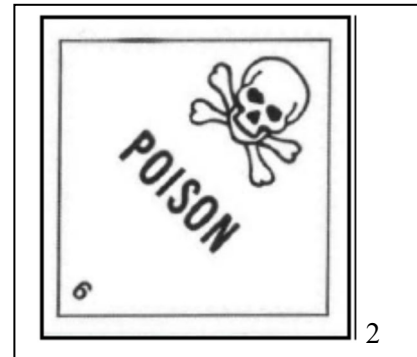
Container Labels

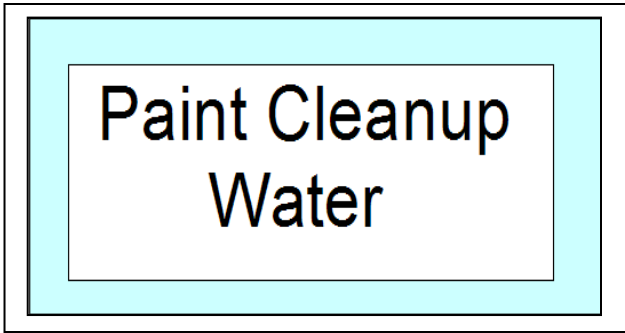
Containers will be labeled as Follows for water based paint waste (Labels 1 and 2:



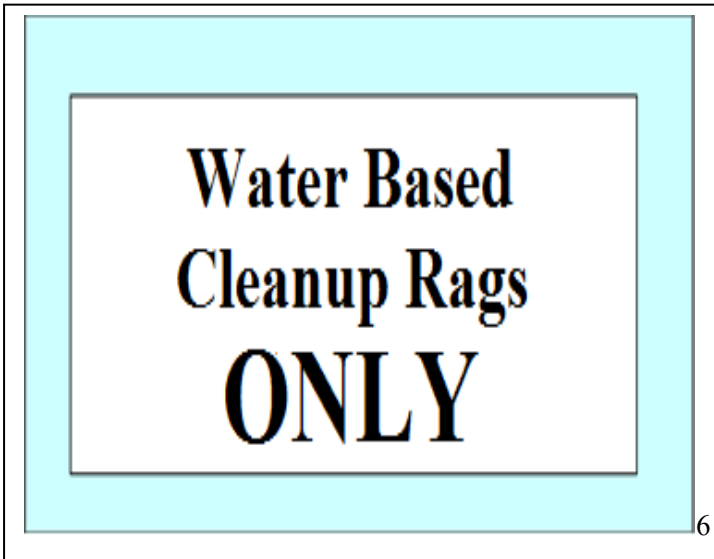
In this case the start date is the date you first use the container. Complete Full date is when the container is full. Contact EH&S right away for a pickup. Contents will be whatever is in the container. Waste Paint Tubes; Paint Wash Water; Rags/Paper Waste; etc.

Use label 3 as well as labels 1 and 2 for Paint tube waste





Use labels 4 and 5 as well as labels 1 and 2 for Paint cleanup water



Use label 6 and 7 as well as labels 1 and 2 for Water Based Paint Cleanup Rags.



EH&S will supply all waste containers and labels. Contact 2788 or 6455 for containers. Fill out the hazardous waste pickup request found on the EH&S website under forms.

REVISION HISTORY		
Rev	Affected Page	Change Descriptions
0	All	Release 9/15/12
1	All	Formatting Changes on all pages, 5/29/14
2	All	Reviewed all 12/10/15
	All	Update to New Format 4/28/2017