



Studio Safety and Solvents #07

Managing solvents is the key to studio safety. Oil painting studios are immediately safer when artists remove strong solvents, especially turpentine, from their painting processes. Painters have been using turpentine for hundreds of years because it has been commonly available. Pure 100% odorless mineral spirits (OMS) is an innovation of the late 20th century so it is no wonder that many painters do not know yet how safe and available OMS is.

At Gamblin Artists Colors Co., our goal is to advance oil painting by making artists' materials with no exposure to toxic solvents. Because artists must use turpentine or other strong solvents to dissolve dammar crystals, we decided not to base [Gamblin painting mediums](#) on natural resins.

Once we decided to formulate Gamblin Painting Mediums with 100% pure odorless mineral spirits, I chose to use alkyds for the resin component. Alkyd has a greater affinity for oil colors than dammar or other natural resins because it is produced from oil, not from an exotic tree. Alkyd is actually the third generation of polymerized oil used by artists. (In the 18th century—sun thickened oil. In the 19th century—stand oil. In the 20th century—alkyd.) So why is it called a resin? Because it is so highly polymerized that it dries like a resin. Alkyd resin dries by curing rather than oxidizing like linseed oil. Alkyds have been formulated for use in artists' materials, most successfully as an oil painting medium because alkyd resin as a binder cannot hold the high pigment load of linseed oil.

Galkyd painting mediums speed the drying time of oil colors and increase their flexibility. Galkyds will not yellow over time. I formulated Galkyd painting mediums to use with different painting techniques:

- [Galkyd](#) is like a medium made from stand oil so use Galkyd to level brush strokes and for enamel like glazes.
- [Galkyd Lite](#) is like a medium made from linseed oil so use Galkyd Lite for direct painting and techniques to leave brush marks.
- [Galkyd Slow Dry](#) gives painters time to work wet into wet (approximately one day).
- [Galkyd Gel](#) creates transparent impasto.

Galkyd painting mediums & [Cold Wax Medium](#) mix, thin and clean up with [Gamsol](#) or other high quality brand of OMS. I do not recommend painters use "alternative solvents" as ingredients in painting mediums. They are not 100% volatile so they leave residues that never dry inside paint layers.

Once painters remove turpentine from their studios, good ventilation is the next issue. According to the recommendation of an environmental hygienist, studio air should be changed ten times per hour. A certain percentage of this change is attained by natural

diffusion through the building. Generally the older the building the greater the diffusion. The rest of the air exchange can be attained by opening the windows to increase diffusion and by inserting a fan in one window to blow air out.

Recycling solvents: Gamsol can be re-used until the solvent will no longer clear. Set up a simple system. After a painting session, pour dirty solvent into the first can. Let the solvent settle then pour off the clear solvent into the second clean can. Repeat the process and add another settling can if needed. Keep all settling cans completely closed. Once Gamsol will no longer settle, dispose with motor oil at your local recycling center.

Please note that OMS is not strong enough to dissolve natural resins or to extend natural resin varnishes. Using OMS will cause the varnish to cloud. ("Turpenoid" is a brand of OMS.) Painters who choose to use natural resin varnish as a component of mediums must use turpentine.

Turpentine is toxic waste. Call your local recycling center for disposal instruction.

Sludge from recycling cans of OMS and artists' grade oil colors that do not have health warning labels on the packaging can be disposed of as normal household waste. Because linseed oil soaked rags can spontaneously combust, keep all rags, including paper towels, in closed metal containers.

To protect the watersheds, artists' materials, including acrylics, oil/water media and watercolors, should not be washed down the drain.

If you have any further questions about studio safety and solvents, please feel free to [contact](#) us.

Sincerely,

Robert Gamblin

A handwritten signature in black ink that reads "R Gamblin". The letters are cursive and fluid, with the first letter "R" being particularly large and stylized.

Thank you very much for your interest in our Gamblin Studio Notes.

If you are interested in sharing your impressions about Gamblin Artist's Colors, please visit our [Gamblin Artist's Survey](#)

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