

# Paints and Thinners

## Why are they Regulated ?

Painting wastes result from overspray and paint gun cleaning operations. Solvent-based waste paint is regulated as a hazardous waste because it is toxic or ignitable or both. In addition to the solvent content, some paints contain heavy metal compounds such as lead, cadmium or chromium that will also cause byproducts (like paint filters) to be hazardous for toxicity. Thinners used for cleaning equipment often contain solvents such as xylene, methyl ethyl ketone, toluene and acetone. These waste solvents are also hazardous due to their ignitability and toxicity.

## How Must They Be Managed ?

Paints and thinners must be disposed of as hazardous. (See Section on Hazardous Waste)

If your facility is a Conditionally Exempt Generators (CEG) of hazardous waste, meaning your business generates less than 2,640 pounds per year of *all* hazardous wastes combined, you have some flexibility in how you manage, store and transport small amounts of hazardous waste. Check with the Solid Waste District in your area to see if they will take small quantities of waste paint and thinner.

Use your MSDS (Material Safety Data Sheets) to help with hazardous waste determinations for "questionable" wastestreams - for example, used paper filters or water-based coatings.

Use of solvent-based paints and thinners also results in the emission of two major types of air contaminants - VOCs (volatile organic compounds) and particulates (small, air-borne particles of solid or liquid matter). Vermont's Air Pollution Control Regulations contain broad authority prohibiting the discharge of particulates to the air, especially where such emission can result in a public nuisance and/or odor. If total amount of air contaminants emitted by a facility exceeds 5 tons per year, the facility must register with the Air Pollution Control Division (241-3841).

## What can't be done with them ?

Solvent-based paints and thinners **cannot** be disposed of in the landfill.  
 Solvent-based paints and thinners **cannot** be discharged to a sewer.

## Best Management Practices

- ➔ Buy only the material you need. Consider giving extra paint to the customer for touch-up versus disposal as a hazardous waste.
- ➔ Talk to your spray equipment vendor to determine the gun type with the highest transfer efficiency for your coating operations.

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- ➔ Improve Spray Application Practices :
  - ⇒ Hold gun perpendicular to the surface being sprayed. Never arc the gun.
  - ⇒ Feather trigger at the beginning and end of each pass.
  - ⇒ Use a 50 percent overlap for each pass. (May need to be altered for high solids, high metallic basecoats, some three stage systems or other processes)
  - ⇒ Spray border edges first to keep spray patterns minimal.
  - ⇒ Keep fluid pressure as low as possible; set at pressure tank or remote location, not at the gun with the fluid needle adjusting spring.
  - ⇒ A good rule of thumb is - The lower the viscosity of the material, the smaller the I.D. of the fluid tip.
  - ⇒ Lubricate gun with proper gun lubricant at fluid needle packing, air valve assembly and fluid needle adjustment spring.

- ➔ Talk to your vendor about low VOC coatings: *In general, VOC content between 4 and 5 lbs/gallon is considered low.*

**Prep coats**    ⇒    Use versatile products such as epoxy primers or self-etching primers.

**Primer**        ⇒    Use primer gun with correct fluid tip/air cap combination for your primer surface.  
⇒    If you can't use waterborne products, consider versatile urethane primers.  
⇒    Perform body work using a minimal amount of primer-surfacer.  
⇒    Make sure primer-surfacer can be easily covered with desired topcoat.

**Primer-Sealers** ⇒    Use low VOC urethanes where possible.  
⇒    Make sure primer-sealer can be easily covered with desired topcoat.

**Sealers**        ⇒    Choose appropriate product. If filling capabilities are required, use a primer-sealer.

**Topcoats**      ⇒    Mix colors in-house to assure proper shade and minimize need for blending to get satisfactory color match.  
⇒    Keep good records of paint match information.  
⇒    Avoid use of lacquer-based topcoats.  
⇒    Use low VOC topcoats (polyurethane or urethane) that require < 3 coats.  
⇒    Use high solids/low VOC clears to topcoat color coats;  
⇒    Use waterborne basecoats when available.

- ➔ Consider investing in a gun cleaner to reuse solvent wash. Savings of 30% and more on disposal and raw material costs are typical.

- ➔ Distill spent solvent for reuse, either on-site or off-site. Approximately 70-80% of solvent can be recovered for reuse.

- ➔ Consider purchase of a booth with filters to remove overspray from the exhaust. Always vent above the roofline to maximize dispersion of spray booth emissions and to minimize the potential for nuisance odors in the vicinity.

- ➔ Ensure that employees have the proper personal protection equipment, such as respirators with paint prefilters. Special precautions are required with certain high gloss lacquers that contain isocyanates.