Colorado Department of Public Health and Environment

# Fact Sheet - Paint Gun Cleaning

COLORADO Pollution Prevention PROGRAM

## How <u>not</u> to clean your paint guns:

-Do not immediately fill paint cups with solvent to clean them
-Do not spray solvent through the gun into the paint booth filters or the air
-Do not allow paint to completely dry before cleaning

These methods result in a large amount of waste solvent and in considerable air emissions.

## How to clean your paint guns:

An improved gun cleaning procedure, such as the one described below, can reduce the amount of solvent you use for gun cleaning by 50-75%, while significantly reducing your generation of hazardous waste, lowering your VOC emissions and saving you money.

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clean them. A non-metal spatula should be used when cleaning the cups to avoid scraping the teflon.

If kept separate from solvent wastes, the waste paint may not be hazardous waste. The waste paint could be analyzed to determine if it is hazardous because of metals content. If it does not contain metals such as chromium, cadmium, or lead above the threshold levels (see Part 261 of the Hazardous Waste Regulations), then the paint waste could be managed as "industrial waste" rather than hazardous waste. This analysis would not need to be repeated unless the composition of paint being used changed significantly, such as after changing paint vendors. On the other hand, if the paint waste is combined with solvent waste, then the entire mixture will be hazardous waste because of the solvents.

**❷ Two-stage solvent cleaning.**

In the first stage, solvent is used to clean most of the paint off of the gun (after manual scraping of the paint cup as described above). The solvent is then poured back into the same container and reused until it no longer cleans effectively. Then the solvent is poured into a 55-gallon drum of hazardous waste solvent. As this drum becomes full and has time to settle, it may be possible to decant and reuse the clear solvent at the top of the drum using a drum pump. The sludge at the bottom of the drum requires disposal as hazardous waste.

The second stage is to use clean solvent to finish the gun cleaning, including the nozzle. The second stage could be a paint gun cleaning unit, as described below, or a separate solvent container. When this solvent becomes dirty, it is emptied into the first container for use in the initial solvent cleaning stage. **All of the solvent containers should be closed when not in use to prevent solvent loss due to evaporation and to reduce worker exposure and VOC emissions.**

Another option is for each employee to have their own small (5 gallon) containers, which they could later empty into larger containers as necessary. In this way, waste generation by each employee could be monitored to encourage waste reduction.

**❸ Enclosed paint gun cleaning unit.**

Following paint cup cleaning and the initial cleaning of the paint gun, a gun cleaning unit can be used to minimize solvent use and air emissions during the final cleaning of the paint gun and nozzle. With a gun cleaner, solvent is sprayed through the gun and collected in the unit. Gun cleaners separate the paint solids from the solvent, and the solvent is re-circulated and reused.

Several models of gun cleaning units are available for purchasing. With enclosed gun cleaners, the gun is mounted in place and the unit is sealed tightly while automatic cleaning is in operation. There are also semi-enclosed guns, which have some solvent loss and air emissions. Contact your paint equipment supplier for more information. At least one semi-enclosed unit is available for leasing (Safety-Kleen).

There are advantages and disadvantages to buying your own unit versus leasing. For example, buying your own requires an initial investment of $1000-1500, but will result in lower operating costs. Whether this is cost-effective for your shop depends largely on your size and amount of solvent used for gun cleaning.

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*This fact sheet was compiled by the Colorado Department of Public Health and Environment's Pollution Prevention Program. For more information, please call Kirk Mills at (303) 692-2977.*