

Water-Based Gun Washing Fact Sheet

pacific northwest
POLLUTION PREVENTION
resource center



Background

Auto body shops have traditionally used solvents and paint thinner to clean their spray guns. However, using these solvents presents health risks to workers and the community. Health risks are higher for workers who are directly exposed to the chemicals while working in an enclosed space. Health impacts include irritation to the skin, eyes, and respiratory system, increased risk of cancer, reproductive issues, and potential damage to the nervous system. Solvents used to clean guns also need to be managed as hazardous waste, which costs shops money.

Overview & Benefits

Water-based gun wash is a cleaning solution that is lower in toxicity and performs comparably to paint thinner and other solvents found in traditional gun washing products. Switching from a solvent-based to a water-based solution greatly improves the air quality in the shop and reduces health risks for workers and your neighborhood.

These work in a system that re-circulates the solution through two filters. Instead of dissolving the paint, it lifts the paint off the gun. The same batch of solution can be reused for a long period of time before needing to be swapped out, reducing disposal costs. In most cases, it is not necessary to pre-clean the equipment before putting it in the cleaner. This type of solution can be successfully used to clean both solvent and water-based coatings. Be aware that many water-based solutions are not VOC-free although they do contain much lower levels than solvent-based solutions.

Enclosed Gun Washers



Spray guns must be cleaned in a manner that minimizes solvent evaporation and does not atomize the solvent during cleaning. Gun washers re-circulate solvent during the cleaning, rinsing and draining operation so that the solvent is reused and collects spent solvent so that it is available for proper disposal or recycling.

Things to Consider



Drying Time

Alternative gun cleaning methods may take longer to dry equipment than solvents due to their reduced VOC levels. Therefore, shops may need to adjust their process to include drying time with compressed air to prevent corrosion of the equipment. Another option is to investigate enclosed gun washers that fully clean and dry the paint gun equipment, turning out an immediately usable paint gun when done.



Cost Difference

While safer gun cleaning chemicals may cost more per gallon to purchase, they last much longer than solvent based solutions because they evaporate more slowly than common solvents. The reduction in hazardous waste can save shops enough money to make the alternative worth the investment.



Use of Disposable Paint Gun Liners

Disposable paint gun liners allow paint technicians to measure the amount of paint used for a particular paint job into a plastic cup that is then attached to the spray gun. This allows paint technicians to be more precise in their paint use, as well as giving them the ability to easily store the leftover paint for future use. The use of these products has the additional benefit of having one less part to clean on the gun and prolongs the life of whatever cleaning solution is used. Paint gun liners can be used with either water or solvent-based paints, but must always be disposed of as hazardous waste, unless proven otherwise.

Talk to your supplier

Many different gun washing solutions and technologies are on the market. Ask your supplier about products that are available to you.