



The health and environmental risks of using perchloroethylene (perc) as a dry cleaning solvent are well documented. Perc is a carcinogen (causes cancer), a Hazardous Air Pollutant (HAP) (causes cancer or other serious health effects such as neurological, reproductive, developmental or respiratory problems) and is both a listed and characteristic Resource Conservation and Recovery Act (RCRA) hazardous waste. Perc releases have contaminated soil and groundwater at many current and former dry cleaning sites, resulting in difficult and expensive environmental cleanup.

There are several alternative dry cleaning solvents available that offer advantages over using perc. These include hydrocarbon solvents (e.g., DF-2000, EcoSolv), glycol ethers (e.g., GenX, Rynex-3), dibutoxymethane (SolvonK4), n-Propyl Bromides (e.g., Fabrisolv, DrySolv), methyl siloxane (e.g., GreenEarth), liquid CO₂, and wet cleaning using computer-controlled washers and dryers with special detergents. Although these alternative cleaning methods are not without risk, they are much less likely to cause chronic health effects and can be less costly to clean up if released into the environment. Local fire codes may prohibit or restrict use of some of these solvents due to their higher potential to cause fires.

Dry Cleaner Responsibilities

Every dry cleaner must determine if their wastes are hazardous waste, either because the waste exhibits a characteristic (ignitability, corrosivity, reactivity or toxicity) or because it is a listed hazardous waste. Most of the alternative dry cleaning solvents currently in use are not, by themselves, classified as hazardous waste before use. It should be noted, however, that the classification of a dry cleaning solvent can change after use, especially if spotting agents, waterproofing or other fabric treatments are used. Some of these treatments contain listed hazardous waste constituents, such as trichloroethylene (in spotting agents), that will cause the used solvent to be classified as a hazardous waste (trichloroethylene (TCE) is a listed F002 hazardous waste). Other contaminants and break down of the solvent itself also may cause the waste to exhibit one or more of the hazardous waste characteristics after use. A hazardous waste determination must also be made on associated dry cleaning wastes including lint, filters, still bottoms, distillation sludges, separator water and vacuum water.

Dry cleaning wastes tend to be variable over time, so one-time testing will likely not be sufficient for making the hazardous waste determination. Periodic testing of representative samples of each waste may be required to ensure proper management and disposal of these wastes. Testing should include constituents and characteristics that are reasonably expected to be there. For example, if the dry cleaner knows that the spotting agent they use does not contain trichloroethylene (TCE), there is no reason to test the waste for this constituent.

Dry Cleaning Waste Management and Disposal

Dry cleaning wastes, including used solvent, lint, filters, still bottoms and sludges, that are determined to be hazardous waste must be managed as hazardous waste while on site and sent to a permitted hazardous waste treatment, storage and disposal facility utilizing the services of a hazardous waste transporter.

Dry cleaning wastes that are determined to be non-hazardous may be disposed of as non-hazardous industrial solid wastes. Municipal solid waste facilities with solidification basins approved to take

industrial liquids may be able to manage non-hazardous alternative dry cleaning solvent wastes. In this case, the non-hazardous lint, filters, still bottoms and sludges that do not contain free liquids may be disposed of at any municipal solid waste landfill.

Due to the nature of dry cleaning solvents, the Colorado Department of Public Health and Environment (the Department) recommends that even non-hazardous dry cleaning solvents and other dry cleaning wastes containing free liquids be disposed of at a hazardous waste treatment, storage and disposal facility that can manage them as non-hazardous solid waste.

Separator water that is determined to be hazardous waste may be evaporated in an onsite mister or evaporator that has been approved of by the Department. The dry cleaner must follow the manufacturer's recommendations regarding filter changes and other maintenance requirements. They also need to obtain a letter from their local wastewater treatment facility that allows them to operate the unit as long as they are not discharging anything to the sewer. Separator water that is determined to be non-hazardous may be evaporated in an onsite mister or evaporator or be discharged down the sewer with permission from their wastewater treatment facility.

For more information, please contact:

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