

Do Green Dry Cleaners Exist?

GreenTips, Union of Concerned Scientists, www.ucsusa.org/publications/greentips

Contrary to what its name implies, dry cleaning involves washing clothes in a liquid solvent to remove stains. In about 85 percent of dry cleaning shops this solvent is perchloroethylene (or “perc”), a chemical that the Environmental Protection Agency (EPA) considers both a health and environmental hazard.

Dry cleaning is not always necessary; clothing makers often place the “dry clean only” label on tags because they can list no more than one cleaning method and can be held liable if an item is damaged when the owner follows the listed procedure. Yet many of these items can be safely washed at home, either by hand or using a washing machine’s delicate cycle. For clothes that must be professionally cleaned due to their size, fabric, decorations, or other factors, there is no perfect solution, but you could consider using a cleaner that offers one of the following perc-free methods.

Wet cleaning uses the universal solvent—water—along with computer-controlled washers and dryers, specialized detergents that are milder than home laundry products, and professional pressing and finishing equipment. The EPA considers it one of the safest professional cleaning methods; its benefits include “no hazardous chemical use, no hazardous waste generation, no air pollution and reduced potential for water and soil contamination.”

Carbon dioxide (CO₂) cleaning uses non-toxic, liquid CO₂—the same form used to carbonate soda—as the cleaning solvent, along with detergent. The CO₂ is captured as a by-product of existing industrial processes, thereby utilizing emissions that would otherwise be released into the atmosphere; since only about two percent of the CO₂ is lost into the air with each load of clothing, its impact on global warming is minimal. CO₂ cleaning also uses less energy than traditional dry cleaning, which involves heating the solvent.

Silicone cleaning is a proprietary technology that employs a silicone-based solvent to clean clothes. The solvent itself is currently considered safe for the environment because it degrades to sand, water, and carbon dioxide, but it has caused cancer in lab animals in EPA studies. In addition, it is manufactured using chlorine, which can generate harmful dioxin emissions.

Not all cleaning methods advertised as “green” are as environmentally benign as they may seem. For example, a solvent called DF-2000 being touted as an “organic” dry cleaning fluid is actually a petroleum product manufactured by ExxonMobil. It is indeed organic in the same way gasoline and perc are organic: it contains a chain of carbon atoms. But the EPA lists DF-2000 as a neurotoxin and skin and eye irritant for workers, and its use can contribute to smog and global warming.