

The *Lotus Live* Guide to *Dry Cleaning*

In this guide, Lotus Live presents the collective knowledge of our members and of many reliable internet and print sources regarding the eco-effectiveness of the various dry cleaning methods on the market currently. The guide is divided into three sections: **known culprits**, which should be avoided, for a variety of environmental, social, and health reasons, **better but not best**, which are better than the culprits, but not without their issues, and **passive positives**, the methods that have no discernible downsides.

Known Culprits:

- **Tetrachloroethylene (a.k.a. perchloroethylene a.k.a. PERC)**¹ is the active chemical in traditional dry cleaning. Breathing it in may cause dizziness, headache, sleepiness, confusion, nausea, difficulty in speaking and walking, unconsciousness, or death, and skin contact may result in irritation. Prolonged exposure may cause menstrual problems, spontaneous abortions, and liver and kidney damage. The Department of Health and Human Services has flagged it as a likely carcinogen. As if that's not enough to convince you not to use it, it is synthetically manufactured from depletable fossil fuel inputs.

Better But Not Best:

- **Green Earth[®] Dry Cleaning**²: The Green Earth[®] process uses Siloxane D5, a silicone based solvent to gently clean clothes, in a traditional process. The safety of this product is disputed, and studies conflict, though it is widely accepted to be better than PERC. More studies support its safety than oppose it³, but where better alternatives are available, they should be utilized, as D-5 is still a synthetic chemical.

Passive Positives:

- **CO₂ Cleaning**⁴: In the CO₂ dry cleaning process, solid and liquid CO₂ is blasted at the article of clothing, cleaning it through a combination of momentum transfer, and solvent action as the solid and liquid CO₂ evaporates. After cleaning, the gaseous CO₂ may be recycled (re-pressurized and condensed), leaving the dirt it has removed as the only waste product. The process removes particles and residues of all sizes and

¹ [ToxFAQs Tetrachloroethylene](#)

² [Green Earth Cleaning](#)

³ [National Clothesline](#)

⁴ [CO₂ Snow Cleaning FAQ](#)

types, leave no cleaning residues, and is completely non-destructive. It has been independently shown to be as effective as PERC cleaning⁵.

- **Wet Cleaning:** Professional wet cleaning has long been an alternative to dry cleaning, in which clothes are carefully washed in customizable computer-controlled washing machines with biodegradable soaps and conditioners.

Lotus Live Contributors: Nick Enge

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If you have any ideas, suggestions, or corrections you would like to contribute to this guide on Dry Cleaning, please send us an email at [additions@lotuslive.org](mailto:additions@lotuslive.org).

Feel free to make use of any of the information in this guide for any purpose--we simply ask that you credit us and our predecessors, and link to us.

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<sup>5</sup>[CO2 Cleaning Fact Sheet](#)