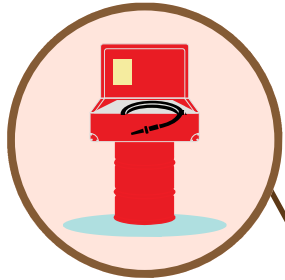


Auto Repair Shops: Stay Safe when Degreasing



Solvent-based part washer

Degreasers

- Degreasers remove grease, oil, and dirt from surfaces.
- They can be applied by spraying them directly, onto a rag, in a parts washer, or using a pump sprayer.
- Solvents are added to degreasers to improve their cleaning power.
- Degreasers are often found in brake and engine cleaners commonly used in auto repair.



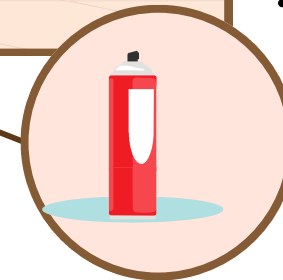
Read the label

Avoid products that contain any of the following ingredients:

- methylene chloride
- methanol
- methyl ethyl ketone (MEK)
- trichloroethylene
- toluene
- xylene

Solvents in degreasers

- Solvents evaporate quickly at room temperature and are also known as volatile organic compounds or VOCs.
- VOCs are pollutants that contribute to indoor and outdoor air quality issues.
- Solvents in degreasers can get on your skin or you can breathe them when you spray them.



Degreaser spray can

Immediate Health Effects

- Headache
- Eye irritation
- Skin problems
- Throat irritation

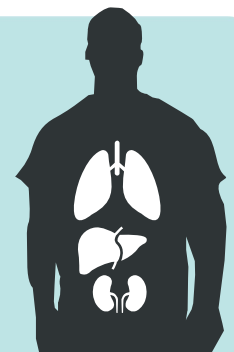


Health Effects

Exposures to VOCs can affect your health, depending on how much you are exposed to and for how long. Some solvents are more toxic than others. High exposure to any solvent over time can affect your health.

Long Term Health Effects

- Lungs
- Liver
- Kidney
- Central nervous system
- Reproductive system
- Cancer



Auto Repair Shops: Stay Safe when Degreasing

Safer degreasers

- Look for safer degreasers that have lower VOC-content or are VOC-free.
- Replace solvent degreasers with safer degreasers.
 - Non-chlorinated degreasers contain less VOCs than chlorinated solvent degreasers.
- Swap out solvent-based cleaners with water-based cleaners.



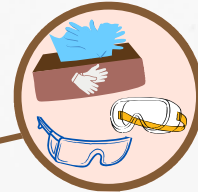
Ensure strong ventilation



Bio-based part washer



Safer cleaners



Personal protective equipment (PPE)

Best Practices when Degreasing

- ✓ Follow best practices suggested by the Minnesota Technical Assistance Program (MnTAP).
- ✓ Use EPA's Safer Choice Products website for help in selecting safer products.
- ✓ Wear chemically protective gloves (i.e. nitrile) and safety glasses when working with solvent degreasers.
- ✓ Increase shop ventilation for better air quality by using an exhaust fan or opening windows/doors.

Best practices by MnTAP visit:

<http://www.mntap.umn.edu/focusareas/air/projects/degreasing/>

EPA's Safer Choice Products:

<https://www.epa.gov/saferchoice/products>

Using safer degreasers would lead to...

- Better indoor/outdoor environments by reducing emissions.
- Reduction or elimination of hazardous waste.
- Improved worker health.

Safer degreaser study

An ongoing study at the University of Washington determined that workers using solvent-based degreasers in auto repair shops have elevated levels of several toxic solvents in their blood and urine.

We expect that using safer alternatives will result in the following:

- Decreased exposures to VOCs.
- Reduced health effects for workers.
- Better understanding of how safer degreasers reduce toxic exposures.