



## Management of Used Antifreeze Technical Guidance Document HW-1997-G2

This technical guidance document describes the options for properly managing used antifreeze.

Although used antifreeze is not a listed hazardous waste under either federal or state regulations, it can be classified as a characteristic hazardous waste due to the presence of metals and/or other contaminants. The most common contaminant is lead. Other possible contaminants include cadmium, chromium, benzene, and perchloroethylene (a.k.a. tetrachloroethylene).

### Off-Site Disposal

If used antifreeze will be disposed of rather than recycled, a waste determination must be conducted prior to disposal. Typically, a representative sample of the used antifreeze is collected and analyzed, using the Toxicity Characteristic Leaching Procedure (TCLP) test, for the presence of potential contaminants including metals and volatile organic compounds. If any contaminants are detected above the regulatory limits found in 40 CFR 261.24, the used antifreeze must be managed and disposed of as a hazardous waste, including compliance with container and manifesting requirements.

### Off-Site or On-Site Recycling

The cost of TCLP analyses can be a significant financial burden, especially for small generators of used antifreeze such as automotive repair shops. Recycling is an easier and less costly method for managing used antifreeze. Recycling also saves natural resources.

Generators who intend to recycle used antifreeze, either on-site or through a legitimate commercial recycling service, do not need to conduct TCLP analyses. Any generator choosing to use a commercial recycling service

should ensure that the recycler has all appropriate regulatory permits. The Kansas Department of Health and Environment (KDHE) may require a solid waste processing permit for commercial recycling services operating in Kansas.

Used antifreeze accumulated on-site prior to recycling should be stored in closed containers labeled with the words "Used Antifreeze." Since KDHE does not view used antifreeze destined for recycling as a potential hazardous waste, it may be transported under a bill of lading or contractual arrangement rather than under a hazardous waste manifest.

### Residues from Recycling

Waste from used antifreeze distillation or recycling systems, including still bottoms and filters, must be characterized to determine if it is hazardous waste. If the waste is hazardous, it must be managed in accordance with all applicable hazardous waste regulations.

### Mixing Used Antifreeze with Other Wastes

Any business generating or accumulating used antifreeze is strongly encouraged not to mix the antifreeze with used oil or any potential hazardous waste. Mixing other wastes with the used antifreeze may render the mixture hazardous or may make it more difficult to recycle.

### Alternatives to Recycling

KDHE encourages the legitimate recycling of all used antifreeze, however there are some alternative, site-specific disposal options.

- If a batch of non-recycled antifreeze has been

tested and determined to be nonhazardous, it may be solidified to the point that no free liquids remain. After solidification, the waste may be disposed of at a permitted municipal solid waste landfill.

- In some instances used antifreeze may be disposed of, without prior testing, to a sanitary sewer. If the used antifreeze is mixed with domestic sewage and passes through the sewer to a Publically Owned Treatment Works (POTW) for treatment, the mixture is not considered a solid and/or hazardous waste. Written authorization from the operator of the POTW must be obtained prior to discharging used antifreeze to the sewer, and a record of the authorization must be maintained by the generator.

Used antifreeze may NOT be discharged to storm sewers, septic systems, water ways, or be discharged on the ground.

### **Summary**

Acceptable management practices for used antifreeze include the following:

- Recycling, either on-site or off-site.
- Disposal after making a waste determination.
  - If the used antifreeze is hazardous, it must be managed in accordance with all applicable hazardous waste regulations.
  - If the used antifreeze is not hazardous, it may be solidified and disposed of at a permitted municipal solid waste landfill.
- Disposal via the sanitary sewer, only if written authorization has been received from the POTW.

For additional information regarding proper management of solid or hazardous waste, you may contact the Bureau of Waste Management at (785) 296-1600 or the address at the top of this document, or visit the Bureau's website at <http://www.kdheks.gov/waste/>.