

HW-31

2020

Is My 'Non-Hazardous' Parts Washer Solution Hazardous?

Environmentally friendly parts washer solutions may be marketed as being “non-hazardous,” “non-chlorinated” or “non-ignitable.” These claims may be entirely accurate when describing the *unused* parts washer solution. However, after you have used the parts washer solution to wash parts, it may become contaminated with solvents or metal bearing oils and greases at high enough levels to make your environmentally friendly parts washer solution a regulated hazardous waste.

Hazardous contaminants may include:

1. Toxic metals, such as cadmium, chromium or lead from wear of engine or other metal components.
2. Gasoline introduced into the parts washer solution, which could make your spent parts washer solution ignitable and/or add toxic benzene to the solution.
3. Other solvent spray cleaners, such as brake cleaners, that contain certain toxic constituents. Typical solvent ingredients found on a container label that could make your parts washer hazardous include: tetrachloroethylene, methylene chloride, trichloroethylene, methyl ethyl ketone (MEK), methyl isobutyl ketone (MIBK) and toluene.

Determining Whether the “Non-Hazardous” Spent Parts Washer Waste Is Hazardous

Even if you *lease* the parts washer unit, when the parts washer solution becomes spent (no longer useable), it becomes a waste and requires an evaluation by the “generator” of the waste. In other words, you need to make a “hazardous waste determination” before it is picked up for recycling or disposal. **Please note that it is your responsibility to make a proper hazardous waste determination and document that determination, not your vendor’s responsibility to do this for you.**

In order to determine if the spent parts washer solution is a hazardous waste, you may need to hire an environmental laboratory to test a representative sample of the spent parts washer solution. This sample should be taken at the time that it is determined to be a waste or is no longer usable. The analyses should include, at a minimum, the following (if applicable):

- Ignitability, *i.e.*, flashpoint analysis.
- The Toxicity Characteristic Leaching Procedure (TCLP) for:
 - Heavy metals, such as arsenic, cadmium, chromium and lead.
 - Organic solvents, such as MEK, trichloroethylene, benzene and tetrachloroethylene.

Follow-up analyses are suggested to be repeated whenever the facility’s process or materials change.

Alternatively, you may declare your spent parts washer solution to be a hazardous waste, without incurring the expense of laboratory analyses, based upon the “knowledge” of your process. For example, if you use a solvent containing any chemicals listed in #3 above (*e.g.* certain brake cleaners) to clean parts over your parts washer sink, then you may have created a hazardous waste mixture. Even a few quick “taps” on the spray can be enough

to cause the parts washer solution to become regulated as a hazardous waste. It is recommended that you do not use solvents with the ingredients listed in #3 above in order to avoid contaminating your parts washer.

In certain cases, you may also use your process “knowledge” to declare your parts washer is non-hazardous waste without testing. You may be able to do this if you know that you are not contaminating it with toxic metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver), solvents (specifically listed in #3 above), and/or gasoline (benzene) and are having the parts washer serviced on a regular basis. Please note that you must keep detailed documentation on all non-hazardous and hazardous waste determinations, which includes a review of the materials introduced (*i.e.* safety data sheets or prior analysis), a description of the process, and a certification that the process does not come into contact with hazardous wastes or materials at any time.

If you determine that your spent parts washer solution is a hazardous waste, you are required to manage the spent parts washer solution in accordance with Env-Hw 500 of the New Hampshire Hazardous Waste Rules, which includes requirements for proper storage, labeling and disposal.

Please note that the same process above would apply for any filters and “sludges” that may accumulate in your parts washer unit.

Mixing with Used Oil

Can the spent parts washer solution be mixed with used oil and burned to heat the facility? Maybe. You can determine this by following the steps listed below.

1. If your spent parts washer solution is hazardous because it contains metals or regulated solvents, the spent parts washer solution **cannot** be mixed with your used oil and must be managed in accordance with the Hazardous Waste Generator Requirements (Env-Hw 500).
2. If you have determined that your spent parts washer solution is truly “non-hazardous” using laboratory analyses, you may mix your spent “non-hazardous” parts washer solution with your used oil, and handle the mixture as used oil, including burning to heat your facility. However, you must still follow the burner manufacturer’s specifications and requirements prior to burning anything other than used oil in your burner. Should you have any questions, please contact the NHDES Used Oil Program at (603) 271-6424.
3. If your spent parts washer solution is hazardous due to ignitability only, (*i.e.*, laboratory analyses show the spent parts washer solution is less than 140°F and it is not hazardous for any other reason), then the spent parts washer solution/used oil *mixture* only has to pass the hazardous waste standard for ignitability.
 - If the flashpoint of the *mixture* is greater than 140°F, the mixture can be managed as used oil and can be burned for energy recovery in an appropriate used oil space heater.
 - If the flashpoint of the *mixture* is less than 140°F, the mixture is a hazardous waste and must be managed in accordance with the Hazardous Waste Generator Requirements (Env-Hw 500).

Please note a used oil burner is subject to Env-A 1400 Regulated Toxic Air Pollutants if it burns anything that doesn’t meet the definition of Env-Hw 807.02 Specification Used Oil. The generator would be required keep documents of the compliance determination.

For more information

Questions regarding this fact sheet should be directed to the NHDES Hazardous Waste Management Bureau at (603) 271-2942 or toll-free within New Hampshire at 866-HAZWAST (M-F 8 a.m.-4 p.m.) or email hwcomp@des.nh.gov. For a complete description of the requirements, refer to the New Hampshire Hazardous Waste Rules, Env-Hw 100-1200, available from [NHDES’ website](#).