Solvent-based Parts Washers

Guidance for Minnesota businesses using solvent-based parts washers

Many businesses, such as vehicle or firearm repair shops, manufacturers and printers, use machines that clean oily or dirty parts by spraying them with a fluid. These machines are commonly called *parts washers*. Some parts washers use solvent-based cleaning fluids, such as mineral spirits, 'citrus solvent', or proprietary mixtures; others, known as *aqueous-based parts washers*, use water-based fluids that may contain detergents. The following guidance applies to solvent-based parts washers.

For guidance regarding aqueous-based parts washers, visit the Minnesota Pollution Control Agency (MPCA) at http://www.pca.state.mn.us/publications/w-hw4-44.pdf to view hazardous waste fact sheet #4.44, Aqueous-based Parts Washers.

Environmental concerns

Used parts washer solvents, sludges, filters, and still bottoms may:

1. Be ignitable
2. Be contaminated with other, toxic solvents, such as perchloroethylene or methyl ethyl ketone,
3. Contain toxic contaminants picked up from the parts cleaned, such as lead or chromium

Improper management of these solvents, sludges, filters, and still bottoms can expose your employees to toxins or release toxins into the environment.

The requirements in this fact sheet also apply to solvent-based paint and coating applicator, or 'gun', cleaners, except where noted. The hazardous waste programs of the Minneapolis-St. Paul metropolitan area counties may impose requirements that are more stringent. Contact your metropolitan county for local requirements.

Minimizing cost and waste

The Minnesota Technical Program (MnTAP) has information that may help you reduce the costs of operating your solvent-based parts washer and the amount or toxicity of the waste you generate. Contact MnTAP for assistance. See 'More information' on page four.

Are my used parts washer-related wastes hazardous?

Used parts washer solvent is considered a waste when you can no longer use it to clean parts, when you decide to dispose of it or when you decide it needs to be reclaimed. Assume used parts washer solvent, sludge, filters and still bottoms are hazardous wastes until you evaluate each and have documentation showing the waste is non-hazardous. When you evaluate, take a representative sample of each waste and at a minimum, check each for ignitability, mixture with an F-listed solvent, and toxic contamination. For information on evaluating wastes, visit the MPCA at http://www.pca.state.mn.us/publications/w-hw1-01.pdf to view hazardous waste fact sheet #1.01, Evaluate Waste, Determine Generator Size. Remember to wait until you are ready to dispose of or reclaim a solvent before evaluating it – including sampling if you plan to test it. You must evaluate the *used* parts washer solvent and related wastes – not the product.

During use, contamination may be introduced to a parts washer solvent resulting in a non-hazardous product becoming a hazardous waste. For example, a *product* with a high flash point may become contaminated with something that burns readily, such as gasoline or some aerosol products, resulting in a flash point low enough that the *waste* is an ignitable hazardous waste. Similarly, even solvents marketed as biodegradable may become contaminated during use – with toxic (heavy) metals or low-flash or F-listed solvents – resulting in a waste that is hazardous.

Remember that many brake, carburetor, and gasket cleaners contain F-listed solvents. If used in or over a parts washer, the waste parts-washer solvent becomes a listed hazardous waste. To avoid this, ensure employees are trained adequately.

If you can demonstrate that you use no F-listed solvents in your facility, you may assume that your used parts washer solvent has not been mixed with F-listed solvents.

For an explanation of F-listed solvents, visit the MPCA at http://www.pca.state.mn.us/publications/w-hw2-00.pdf to view hazardous waste fact sheet #2.00, F List of Hazardous Wastes.

Labeling and storing hazardous parts washer-related wastes

You do not need to label a parts washer that is in use. You do not need to label parts washer-related wastes such as sludge or still bottoms until you remove them from the parts washer.

If you remove hazardous used parts washer solvent, sludge, or still bottoms from a parts washer and accumulate them before recycling or shipping them off site for proper disposal, you must:

- Store them in closed containers that are compatible with the waste
- Label the containers with the date the solvent, sludge, or still bottoms became a waste, a clear description of the waste, and the words "Hazardous waste"
- Store containers in an area able to fully contain any spills from any of the containers

For more information on labeling and storing wastes, visit the MPCA at http://www.pca.state.mn.us/publications/w-hw1-04-05.pdf to view the hazardous waste fact sheet Label and Store Hazardous Waste.

Recycling used parts washer solvent and counting for generator size

Sometimes parts washer solvent may be reclaimed and reused (recycled). Reclamation usually involves distillation, after-use filtration, or a similar process. Recycling may take place at your site or another location. Once reclaimed, used parts washer solvent is considered a product until used again. Adding a filter to your parts washer to prolong the servicable life of solvent that is still in use is not considered recycling.

If you use an on-site stand-alone reclamation unit or an integrated parts washer-recycling unit to reclaim used parts washer solvent for reuse at your site:

1. Count the maximum volume of used solvent you generate before reclamation each month to determine your regulated hazardous waste generator status
2. Count the annual volume of waste solvent – the amount you must count each month added together – to report to your hazardous waste regulator

For help calculating the annual volume, visit the MPCA at http://www.pca.state.mn.us/publications/w-hw7-12.pdf and complete the appropriate section of the Recycled Hazardous Waste Report Form. If your site is located outside the Minneapolis-St. Paul metropolitan area, submit this form with your annual Hazardous Waste License Application to the MPCA. If your site is located within the metropolitan area, contact your county office (see page four) to determine your reporting requirements.

If you ship your hazardous used parts washer solvent off-site for reclamation, count all the waste you generate when determining your regulated hazardous waste generator status. When determining generator status, do not average the total amount of hazardous waste that you must report annually, regardless of whether you recycle the solvent. Determine your generator status using the maximum volume of hazardous waste generated in any individual month in a calendar year.

Disposing of used parts washer solvent and related wastes

Generators of any size may ship hazardous used parts washer solvent and related wastes for disposal or recycling to an appropriate off-site facility using a hazardous waste manifest. For more information on manifesting hazardous wastes, visit the MPCA at http://www.pca.state.mn.us/publications/w-hw1-07.pdf to view hazardous waste fact sheet #1.07, Manifest Shipments of Hazardous Waste.

Very Small Quantity Generators of hazardous waste (VSQGs) have two additional options for managing hazardous used parts washer solvent and related wastes:

1. Transport your hazardous waste to a VSQG Collection Program. For eligibility requirements and a list of programs, visit the MPCA at http://www.pca.state.mn.us/publications/w-hw2-51.pdf to view hazardous waste fact sheet #2.51, VSQG Collection Program Requirements for Generators.
2. Dispose of your hazardous used parts washer solvent and sludge by mixing it into your used oil at your site and following the requirements below. You must still count the volume of solvent and sludge before mixing when determining your hazardous waste generator status and you must still annually report that volume.

To use option number two – mixing with used oil – you must comply with these conditions:

- Your generator size is a VSQG – you generate 100 kilograms (kg) or less of non-acute hazardous waste and less than one kg of acute hazardous waste per month.
- Only your employees mix used solvent into used oil generated at your site. Note: transport and disposal vendors may not mix your hazardous waste into used oil on their vehicles nor at their site.
- The parts washer solvent and sludge do not contain F-listed solvents (often found in brake and other aerosol cleaners).
- The flashpoint of the used parts washer solvent is above 100°Fahrenheit. Test and document the flashpoint of your used solvent before the first time you mix and thereafter any time your shop practices or the type of equipment you service change.
- The volume of used solvent in the final mixture does not exceed ten percent (10%).
- Your used oil disposal vendor has agreed to accept the mixture. (Check first; some vendors may choose not to accept used oil mixed with solvent.)
- Keep a record each time you mix parts washer solvent and sludge into your used oil. The record must include the date, source of the waste, volume of the solvent and sludge waste, and volume of used oil into which it is mixed. Keep these records for at least three years from the date of mixing.
- Report the total volume of hazardous used parts washer solvent and sludge you mixed with used oil.
- Do not mix paint, paint gun cleaner waste, ink, or ink-containing wastes that are listed hazardous wastes or hazardous because of toxic metal levels. Toxic metals include arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver. For information about how to determine whether your waste is hazardous for metals, visit the MPCA at http://www.pca.state.mn.us/publications/w-hw2-04.pdf to view hazardous waste fact sheet #2.04, Characteristic Hazardous Wastes.

If you are a VSQG, you may also dispose of filters from your hazardous parts washer with your used oil filters if you follow all the applicable conditions above. The weight of your hazardous used parts washer filters may not exceed 10 percent of the weight of the used oil filters in the same container. Drain the filters thoroughly into the parts washer before putting them in the used oil filter container.

More information

Guidance and requirements in this fact sheet were compiled from multiple Minnesota Rules in Chapter 7045 and incorporates regulatory interpretation decisions made by the MPCA on February 8, 2012. To review Minnesota Rules, visit the Office of the Revisor of Statutes at https://www.revisor.mn.gov/pubs.

Your metropolitan county and the MPCA have staff available to answer waste management questions. For more information, contact your metropolitan county hazardous waste office or your nearest MPCA regional staff. For information about waste reduction and alternatives to solvent cleaners, contact the Minnesota Technical Assistance Program (MnTAP).

Metro County Hazardous Waste Offices

Anoka 763-422-7093
Carver 952-361-1800
Dakota 952-891-7557
Hennepin 612-348-3777
Ramsey 651-266-1199
Scott..... 952-496-8475
Washington..... 651-430-6655
Websites ..... http://www.co.[county].mn.us

Minnesota Technical Assistance Program

Toll free..... 1-800-247-0015
Metro 612-624-1300
Website..... http://www.mntap.umn.edu

Minnesota Pollution Control Agency

Toll free (all offices)..... 1-800-657-3864
Brainerd.....218-828-2492
Detroit Lakes 218-847-1519
Duluth 218-723-4660
Mankato 507-389-5977
Marshall 507-537-7146
Rochester 507-285-7343
St. Paul 651-296-6300
Willmar 320-214-3786
Website .....http://www.pca.state.mn.us

Small Business Environmental Assistance

Toll free 1-800-657-3938
Metro 651-282-6143
Website http://www.pca.state.mn.us/sbeap/