



Identifying Your Hazardous Waste

As a business owner, it is important to know if you generate hazardous waste. Under Ohio EPA's rules, all wastes generated from a business must be evaluated to see if they are hazardous or not. Ohio EPA has specific rules on how hazardous waste needs to be handled and disposed. For businesses that generate hazardous waste, there are also record keeping requirements to comply with.

What is a hazardous waste?

If you have a material that can no longer be used, it is considered a waste. There are two ways in which your waste can be classified as a hazardous waste:

Listed hazardous wastes

If your waste appears on any one of the lists published in Ohio's hazardous waste rules, it may be a hazardous waste when disposed. These hazardous waste lists are published in the Ohio Administrative Code (OAC), rules 3745-51-31 through 3745-51-33. There are four different types of listed wastes: F, K, P, or U. Each waste on the list is assigned a hazardous waste code.

If you do not know whether your business generates a hazardous waste, or if you are not properly managing hazardous wastes, you could be in violation.

Characteristic hazardous wastes

If you find that your waste does not appear on the F, K, P or U lists in Ohio EPA's rules, your waste may still be regulated if it exhibits a hazardous characteristic. In the rules there are four characteristics that could cause a waste to be regulated as hazardous.

Knowing the EPA waste codes that apply to your wastes is important because these codes identify the specific type of waste generated by your company. They also help identify the waste as it is being transported, treated and disposed of.

Listed Hazardous Waste Codes and Descriptions

<u>Hazardous Waste Code</u>	<u>Waste Description</u>
F wastes:	These listed wastes come from general processes such as cleaning, degreasing, metal finishing and manufacturing.
K wastes:	These listed wastes come from specific industrial processes, such as chemical or pesticide production, petroleum refining and metal manufacturing.
U wastes:	These listed wastes include unused, off-specification or discarded commercial chemicals. For example, if you have a process or lab chemical that has exceeded its shelf life and can't be used, this chemical may be a U waste.
P wastes:	Like U wastes, these wastes are also unused, off-specification or discarded commercial chemicals. The P wastes are, however, more toxic than U wastes.

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Do small businesses generate hazardous wastes?

Yes! Many small businesses are hazardous waste generators. Even if a business generates only a small amount of waste, the waste must still be evaluated and, if it is hazardous, properly managed. Some of the small businesses that are commonly hazardous waste generators include:

- auto repair shops
- auto salvage yards
- body shops
- construction
- dry cleaners
- dentists
- laboratories machine shops
- manufacturing
- medical clinics
- metal finishers
- painters
- photographers
- printers
- sandblasting
- wood refinishers

Characteristic Hazardous Waste Descriptions

<u>Hazardous Characteristic</u>	<u>Description</u>
Ignitability:	The waste is a liquid and has a flash point of less than 140 degrees F (60 degrees C) or could catch fire under certain circumstances. Examples include: solvents, mineral spirits and paint waste. Ignitable hazardous wastes are assigned the EPA hazardous waste code of D001.
Corrosivity:	The pH of the liquid waste is very low (two or less) or very high (12.5 or greater). Or, the waste can corrode metal. Examples include: acids or alkali cleaning baths and battery acid. Corrosive hazardous wastes are assigned the EPA hazardous waste code of D002.
Reactivity:	The waste is unstable, reacts violently, explodes or produces toxic vapors under certain conditions. Examples: cyanide or sulfide wastes and peroxides. Reactive hazardous wastes are assigned the EPA hazardous waste code of D003.
Toxicity:	The waste has specific toxic contaminants present in high enough concentrations to be harmful to humans or the environment. The toxic contaminants and their threshold levels are included in Ohio's hazardous waste regulations (OAC rule 3745-51-24). Examples include wastes that contain heavy metals (e.g., lead, chromium, mercury, cadmium) or certain chemicals (e.g., benzene, MEK, pesticides). Toxic hazardous wastes are assigned the EPA hazardous waste codes of D004 through D043, depending on the contaminant(s) present.

How do I evaluate my waste?

First, you must know about ALL the wastes that come from your business. Go through your business and make a list of all your wastes (include even those that you think are not hazardous). Go through the list and carefully evaluate each waste stream. Some wastes are excluded from the hazardous waste rules. These include, for example, certain wastes that are recycled. You should see if any of your wastes fall under these exclusions in the hazardous waste rules (OAC 3745-51-04). For wastes that aren't excluded, you need to be able to answer the following questions:

- Is the waste on Ohio EPA's F, K, P or U lists of hazardous wastes?
Note: In most cases, any waste that is mixed with or derived from a listed waste is also considered listed—and hazardous. An example of “mixed with” is mixing an F-listed solvent with antifreeze. An example of “derived from” includes distillation bottoms from reclaiming an F- listed solvent.
- Does the waste have any of the hazardous waste characteristics?

Collect information that might be helpful to you in evaluating your waste. This may include information from your vendor, supplier or Safety Data Sheets (SDSs) with product information. You can use the attached sheet to help in your determination.

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Keep any information that you use to make your waste evaluation in your files. If your business is ever inspected by a hazardous waste inspector, the inspector will want to review this information. If you do not have enough information from the process to evaluate a waste, you will need to have the waste sampled and sent to an environmental testing lab for analysis. Keep any lab results you have on your waste in a file.

Some of the common hazardous wastes that are generated from small businesses are listed below. These are just some examples of hazardous wastes that may be generated by your business. However, there may be others that are not listed below.

Common Hazardous Waste and their Waste Codes

<u>Description of Waste</u>	<u>EPA Waste Code(s)</u>
Spent cleaning or degreasing solvents (e.g., xylene, acetone, MEK, toluene, benzene, methanol). Still bottoms	F003, F004, F005, D001, D018, D035
Spent halogenated cleaning or degreasing solvents (e.g., methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, trichloroethylene). Still bottoms	F001, F002, D019, D039, D040
Old paint, paint booth filters	D001, D035, D006, D007, D008
Mineral spirits or stoddard solvent, solvent wipers	D001
Spent acids or caustics	D002
Fluorescent bulbs containing mercury*	D009
Dry cleaning waste and filters	F001, F002, D019
Printing wastes	D001, D002, D011
Lab chemicals	D, F, P, U codes possible
Metal plating wastes	F007, F008, F009, F010, F011, F012, F019, D007, D008
Amalgam	D009

Where can I get more help?

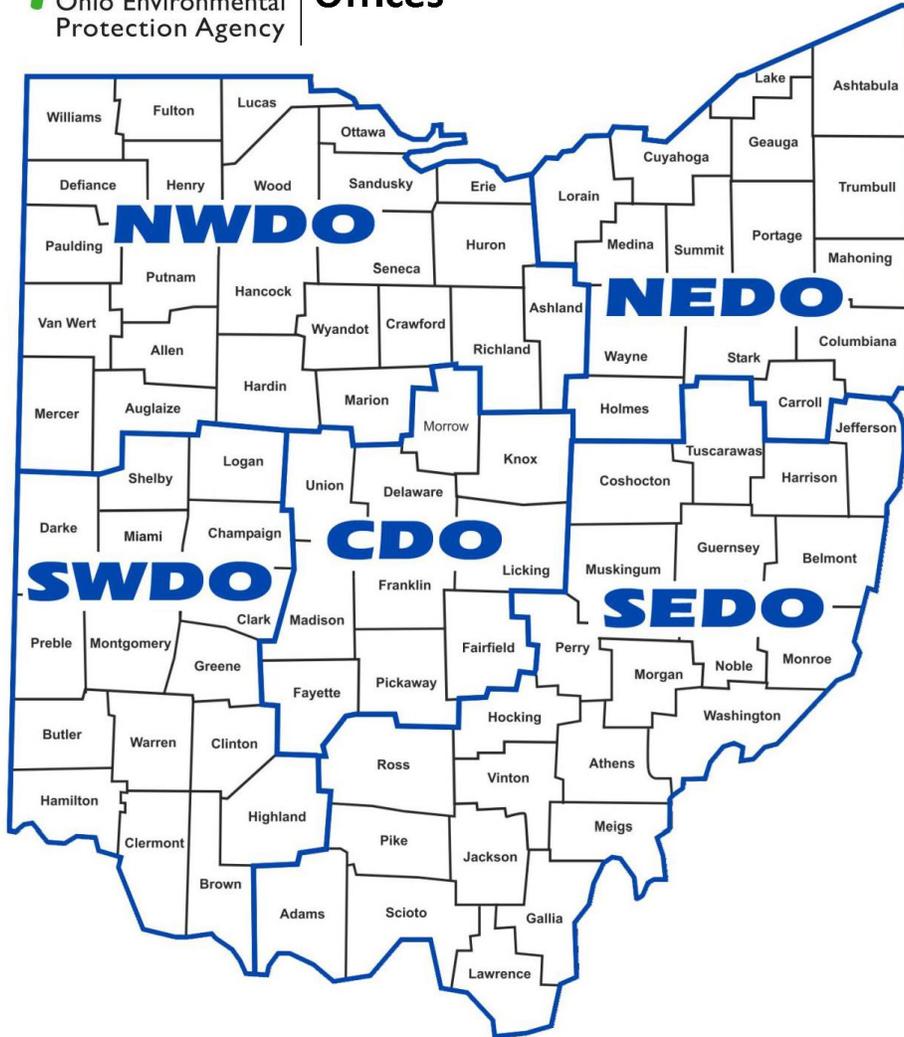
If you have any questions about how to evaluate wastes from your business or any other questions about Ohio's hazardous waste rules, contact either office listed below.

Division of Materials and Waste Management
(614) 644-2621
epa.ohio.gov/dmwm/

Division of Environmental and Financial Assistance
Office Compliance Assistance and Pollution Prevention
(800) 329-7518
epa.ohio.gov/ocapp/

You can also contact your local Ohio EPA district office. Refer to the map on the following page to locate the district office which covers your area.

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Central Office
Lazarus Government Center
50 W. Town St., Suite 700
P.O. Box 1049
Columbus, OH 43215
(614) 644-3020

Northwest District Office
347 N. Dunbridge Rd.
Bowling Green, OH 43402
(419) 352-8461
(800) 686-6930

Northeast District Office
2110 E. Aurora Rd.
Twinsburg, OH 44087
(330) 963-1200
(800) 686-6330

Central District Office
Lazarus Government Center
50 W. Town St., Suite 700
Columbus, OH 43215
(614) 728-3778
(800) 686-2330

Southeast District Office
2195 Front Street
Logan, OH 43138
(740) 385-8501
(800) 686-7330

Southwest District Office
401 E. Fifth St.
Dayton, OH 45402
(937) 285-6357
(800) 686-8930

*Toll-free numbers are for citizens with questions or concerns about environmental issues.
The regulated community should use the business line for routine business.
Spills and emergencies should be reported to (800) 282-9378.*

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Questions to Consider When Evaluating Your Waste

Complete this form and keep it on file for your records and for documentation in the event of an inspection

- Yes No 1) What is the process that generates the waste? Draw and/or describe the process below:
- Yes No 2) What materials are used in this process? Collect, review, and attach all SDS sheets (Note that in some cases hazardous constituents that are present in materials may not be identified on SDS sheets. Additional resources may need to be utilized to further evaluate your waste).
- Yes No 3) Is your waste specifically excluded from hazardous waste regulation in OAC rule 3745-51-04? *(if you answered yes, you may not have a hazardous waste)*
- Yes No 4) Is your industrial operation listed in OAC rule 3745-51-32 and if so, are any generated wastes identified as a listed of hazardous waste in that rule? *(if no move to question 4)*
- Yes No 5) If materials that are listed in OAC rule 3745-51-31, are they used as describe in the listing description found in? *(If you answer yes you may have a listed hazardous waste)*
- Yes No 6) Do the SDS sheets indicate that any of the materials have a flash point of lower than 140 degrees? *(If you answer yes this waste should be evaluated at a minimum for flash point)*
- Yes No 7) Do the SDS sheets indicate that any of the materials have a pH of less than 2 or greater than 12.5 *(If you answer yes this waste should be evaluated at a minimum for corrosivity)*
- Yes No 8) Do the SDS sheets indicate that any of the materials are reactive, is the resultant mixture of any of the materials potentially reactive? *(If you answer yes this waste should be evaluated at a minimum for reactivity)*
- Yes No 9) Is there the potential for any metals to be introduced into the process? *(If you answer yes this waste should be evaluated at a minimum for toxicity)*
- Yes No 10) Do you have access to data collected by other generators using similar processes and materials?
- Yes No 11) If you do have data collected by other generators, does this data indicate that the waste stream is hazardous? *(If you answer yes this waste should be evaluated at a minimum for the constituent(s) that caused the other data to become hazardous)*

- If you answered “Yes” for question 3 and “No” for all other questions, you can potentially demonstrate that your waste is nonhazardous through generator knowledge. Attach the SDS sheets to this form and retain it for your records. Note: that the use of this sheet does not guarantee that the use of generator knowledge is acceptable and an inspector still may request additional data in the event of an inspection, however, the use of this form can significantly help in demonstrating the basis for making the claim that your waste is nonhazardous by using generator knowledge. Additionally, this form can be used to demonstrate the use of generator knowledge to justify no additional testing of a listed hazardous waste to determine characteristic.
- Note that the recommendations for the collection of data are minimum recommendations and many times laboratories offer analytical data packages that will effectively include data beyond the minimum recommendation. In situations like these the generator should consider having the additional data reported to maintain as additional documentation.
- If you answered “Yes” to any of the questions (other than number 3) and had to collect laboratory data, attach the laboratory data and other laboratory report information to this completed form and retain for your records.
- Be advised that if any of the process or materials used in the process changes, you should recomplete this form and potentially collect updated data.