

November 2006

Identifying Your Hazardous Waste

Introduction

As a business owner, it is important to know if you generate a hazardous waste. Under Ohio EPA's regulations, all wastes generated from a business must be evaluated to see if they are hazardous or not. Ohio EPA has specific regulations 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.

If you do not know whether your business generates a hazardous waste, or if you are not properly managing hazardous wastes, you could face a non-compliance penalty.

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 regulations, it is a hazardous waste. 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. Each waste on the list is assigned a hazardous waste code.

Characteristic hazardous wastes

If you find that your waste does not appear on the F, K, P or U lists in Ohio EPA's regulations, your waste may still be regulated if it possesses a hazardous characteristic. Under the regulations, 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. The waste codes are put on drum labels, the generator notification form, hazardous waste shipping manifests and other records.

Listed Hazardous Waste Codes and Descriptions

Hazardous Waste Code	Waste Description
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 old, 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 old, off-specification or discarded commercial chemicals. The P wastes are, however, more toxic than U wastes.

Hazardous waste codes for the above wastes include either an "F," "K," "P," or "U" followed by three digits (e.g., F001, K062, U122, P018).

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

Identifying Your Hazardous Waste

Characteristic Hazardous Waste Descriptions	
Hazardous Characteristic	Description
Ignitability:	<p>The waste 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.</p> <p>Ignitable hazardous wastes are assigned the EPA hazardous waste code of D001.</p>
Corrosivity:	<p>The pH of the 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.</p>
Reactivity:	<p>The waste is unstable, reacts violently, explodes or produces toxic vapors under certain conditions.</p> <p>Examples: cyanide or sulfide wastes and peroxides.</p> <p>Reactive hazardous wastes are assigned the EPA hazardous waste code of D003.</p>
Toxicity:	<p>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).</p> <p>Toxic hazardous wastes are assigned the EPA hazardous waste codes of D004 through D043, depending on the contaminant(s) present.</p>

- dry cleaners
- laboratories
- machine shops
- manufacturing
- medical clinics
- metal finishers
- painters
- photographers
- printers
- sandblasting
- wood refinishers

the list and carefully evaluate each waste stream. Some wastes are excluded from the hazardous waste regulations. 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 regulations (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 distilling 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 Material Safety Data Sheets (MSDS) with product information. 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.

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

Identifying Your Hazardous Waste

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.

What are some options for reducing the amount of waste my business generates?

There are many opportunities for businesses to reduce the amount of hazardous waste they generate, even for small businesses. These options can range from simply improving housekeeping practices to making process changes.

Reducing waste can save your company money, reduce environmental liability and regulatory burdens. To find out more about pollution prevention options for your business, contact Ohio EPA's Office of Compliance Assistance and Pollution Prevention at 614-644-3469 or 800-329-7518.

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 regulations, contact either office listed below.

Ohio EPA
Division of Hazardous Waste Management
tel: 614-644-2917
www.epa.state.oh.us/dhwm

Ohio EPA
Office Compliance Assistance and Pollution Prevention
tel: 800-329-7518
www.epa.state.oh.us/ocapp

You can also contact your local Ohio EPA district office, Division of Hazardous Waste Management. See map to locate district office which covers your area.

Common Hazardous Waste and their Waste Codes

Description of Waste	EPA Waste Code(s)
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

* Waste lamps, pesticides, mercury-containing thermostats and batteries can all be managed as universal waste. For more information on universal wastes see www.epa.state.oh.us/dhwm/guidancedocs.html#UW.

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District Offices



CDO Central District Office
 50 W. Town St. Suite 700
 Columbus, OH 43215
 (614) 728-3778
 (614) 728-3898 Fax
 (800) 686-2330
www.epa.state.oh.us/cdo

NWDO Northwest District Office
 347 N. Dunbridge Rd.
 Bowling Green, OH 43402
 (419) 352-8461
 (419) 352-8468 Fax
 (800) 686-6930
www.epa.state.oh.us/nwdo

SWDO Southwest District Office
 401 E. Fifth St.
 Dayton, OH 45402-6357
 (937) 285-6357
 (937) 285-6249 Fax
 (800) 686-6357
<http://swdoweb.epa.state.oh.us>

NEDO Northeast District Office
 2110 E. Auroa Rd.
 Twinsburg, OH 44087
 (330) 963-1200
 (330) 487-0769 Fax
 (800) 686-6330
www.epa.state.oh.us/nedo

SEDO Southeast District Office
 2195 Front St.
 Logan, OH 43138
 (740) 385-8501
 (740) 3856490 Fax
 (800) 686-7330
www.epa.state.oh.us/sedo

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.