

RCRA C HAZARDOUS WASTE

Green Wrench Summer Workshop

Hazardous Waste Compliance Session

Iven U. Schroeer

Toxic Substances Division
Hazardous Waste Branch
iven.schroeer@dc.gov
(202) 671-5120

REGULATED WASTES COMMONLY FOUND At REPAIR SHOPS

- Used oil
- Some parts washer solutions (HW) (ignitable)
- Some paints and paint thinners (HW) (ignitable)
- Lead wheel weights (HW) (toxic)
- Some concentrated cleaning products (HW) (corrosive)
- Battery acid (HW) (corrosive)
- Most aerosol products (HW) (ignitable)
- Spoiled gasoline (HW) (ignitable)
- Car or forklift batteries (UW)
- Fluorescent lamps (UW)
- Mercury tilt switches (UW)

WHAT IS RCRA?

Resource Conservation & Recovery Act (RCRA): The federal law that gives EPA the authority to control hazardous waste from the “cradle-to-grave”. EPA may authorize states to implement key provisions of hazardous waste requirements in lieu of the federal government.

DOEE Hazardous Waste Branch - regulates ANY FACILITY that generates hazardous wastes, universal wastes and/or used oil.

DC Hazardous Waste Law & Regs:

- District of Columbia Hazardous Waste Management Act of 1977
- DCMR Title 20, Chapter 42 – Standards for the Management of Hazardous Waste and Used Oil
- DCMR Title 20, Chapter 43 – Hazardous Waste Management Regulations Administration and Enforcement

HOW ARE GENERATORS REGULATED:

Very Small Quantity Generator (VSQG)

- Generates, in any calendar month, less than or equal to 100 kg (~220 lbs) of hazardous waste; and
- Does not accumulate more than 1000 kg (~2,200 lbs) of hazardous waste at the site.

Small Quantity Generator (SQG):

- Generates more than 100 kg (~220 lbs) but less than 1,000 kg (~2,200 lbs) of RCRA hazardous waste; and
- Does not accumulate more than 6000 kg (~13,200 lbs) of hazardous waste at the site.

Large Quantity Generator (LQG):

- Generates greater than or equal to 1,000 kg (~2,200 lbs) of non-acute RCRA hazardous waste; or
- Greater than 1 kg (~2.2 lbs) of any RCRA acute hazardous waste listed in sections 261.31 or 261.33(e); or
- Greater than 100 kg (~220 lbs) of any residue or contaminated soil, waste, or other debris resulting from the cleanup of a spill, into or on any land or water, of any acute hazardous wastes listed in sections 261.31 or 261.33(e).

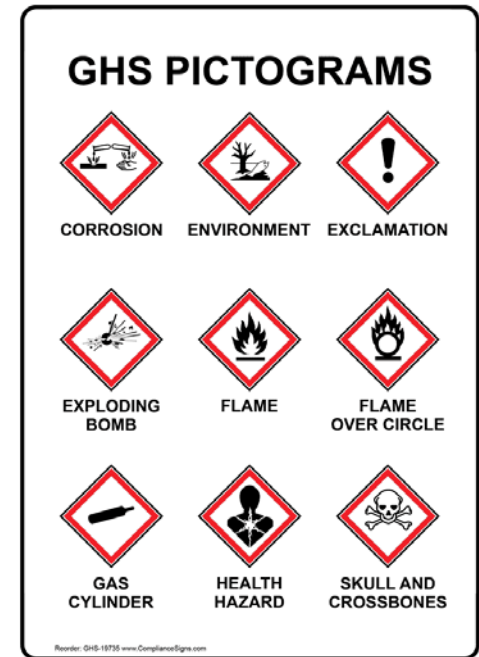
WHAT IS HAZARDOUS WASTE?

A hazardous waste is a WASTE with properties that make it dangerous or capable of having a harmful effect on human health or the environment.
(EPA, 2021)

- Listed wastes
- Characteristic wastes
 1. Ignitable - flash point below 140°F or 60°C
 2. Corrosive - pH ≤ 2 or pH ≥ 12.5
 3. Reactive - explode, react violently with water, release toxic gases or vapors
 4. Toxic – defined through TCLP analysis
- Anything the Administrator or the Director says is hazardous waste

IT MIGHT BE A HAZARDOUS WASTE IF...

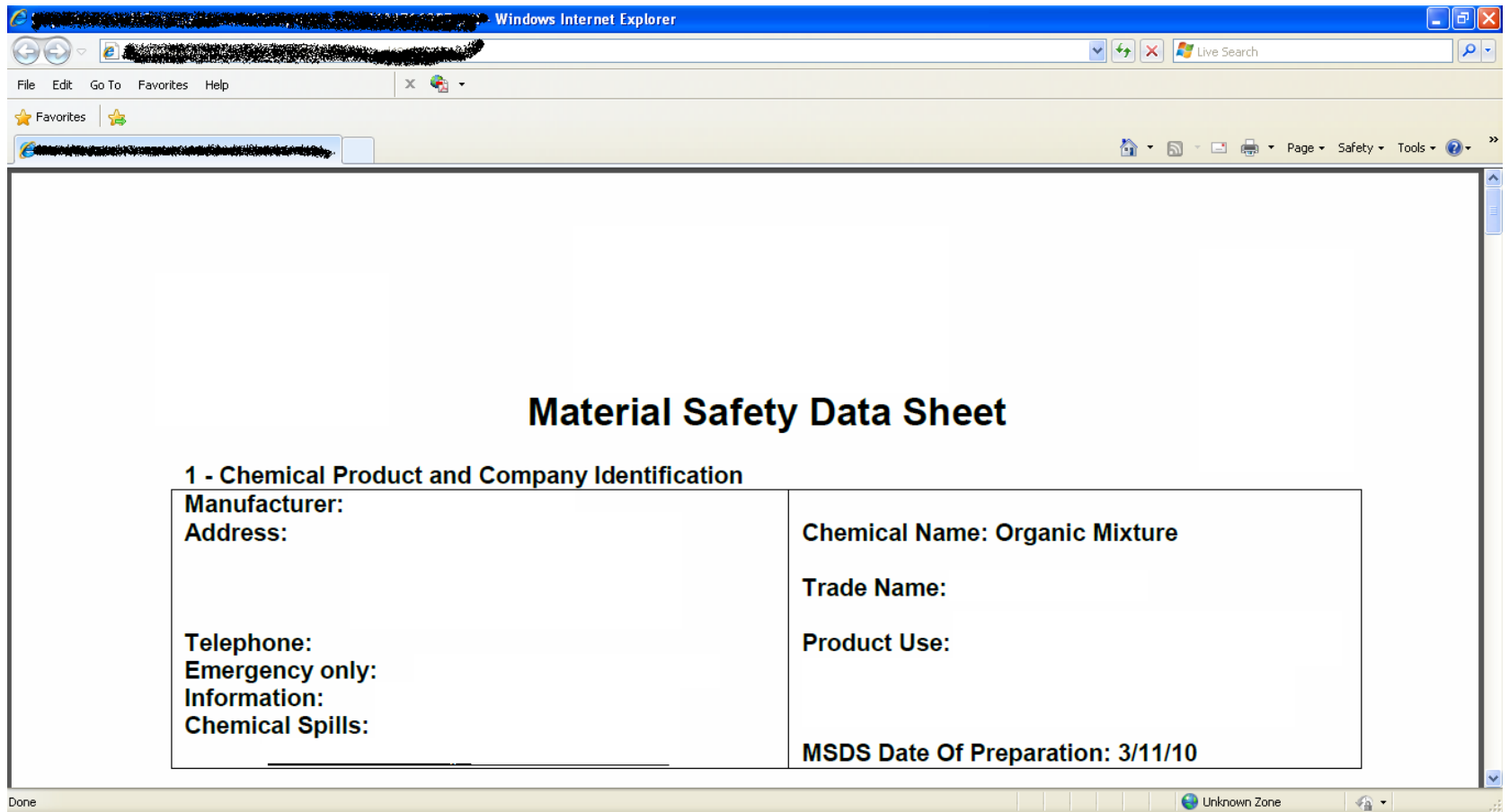
- If it says 'danger' on it
- If it says 'flammable' on it
- If it says 'toxic' on it
- If it says 'poison' on it
- If it says 'warning' on it
- If it has a picture of a skull and crossbones on it
- If it has a picture of a fire on it
- If it is an acid
- If it is a base
- If it is a solvent



Note: This list is not exhaustive, it is intended to initiate the evaluation process.

WHERE IS THE INFO ON AN SDS?

This is what the front page of a (material) safety data sheet (MSDS or SDS) looks like:



The screenshot shows a Windows Internet Explorer browser window displaying a Material Safety Data Sheet (MSDS) form. The browser's address bar is redacted with black scribbles. The page title is "Material Safety Data Sheet". The form is titled "1 - Chemical Product and Company Identification" and is divided into two columns. The left column contains fields for "Manufacturer:", "Address:", "Telephone:", "Emergency only:", "Information:", and "Chemical Spills:". The right column contains fields for "Chemical Name: Organic Mixture", "Trade Name:", "Product Use:", and "MSDS Date Of Preparation: 3/11/10". The browser's status bar at the bottom indicates "Done" and "Unknown Zone".

1 - Chemical Product and Company Identification	
Manufacturer:	Chemical Name: Organic Mixture
Address:	
Telephone:	Trade Name:
Emergency only:	Product Use:
Information:	MSDS Date Of Preparation: 3/11/10
Chemical Spills:	

WHERE IS THE INFO ON AN SDS?

9 – Physical and Chemical Properties

Appearance:	Light amber liquid	Flammable Limits: (Solvent Portion)	LEL: 0.6% UEL: 8%
Odor:	Mild petroleum odor	Vapor Pressure:	95-115 PSI @ 70°F
Odor Threshold:	Not established	Vapor Density:	Greater than 1 (air=1)
pH:	Not Applicable	Relative Density:	0.8 – 0.82 @ 60°F
Melting/Freezing Point	Not established	Solubilities:	Insoluble in water
Boiling Point/Range:	361 - 369°F (183 - 187°C)	Partition Coefficient; n-octanol/water:	Not established
Flash Point:	122°F (49°C) Tag Closed Cup (concentrate)	Autoignition Temperature:	Not established
Evaporation Rate:	Not established	Decomposition	Not established



WHERE IS THE INFO ON AN SDS?

Check the 'disposal considerations' for useful information.

13 - Disposal Considerations

If this product becomes a waste it would be expected to meet the criteria of a RCRA ignitable hazardous waste (D001). However, it is the responsibility of the generator to determine at the time of disposal the proper classification and method of disposal. Do not puncture or incinerate containers, even empty. Dispose in accordance with federal, state, and local regulations.

HOW TO MANAGE YOUR HAZARDOUS WASTE

- **Identify it** - Make a waste determination on all wastes
- **Label it** - “Hazardous Waste” and date it with the accumulation start date
- **Close it** – keep it in a closed container (smaller containers are easier to manage).
- **Inspect it** – conduct weekly inspections and keep a log
- **Dispose of it (correctly)** - Arrange for disposal using a licensed contractor. You will get a manifest. Keep the manifest for your records.
- **Train staff**

WHAT IS UNIVERSAL WASTE?

Universal waste is a subcategory of hazardous waste that are commonly generated by a wide variety of establishments. This category was created to:

- promote collection and recycling
- ease the regulatory burden
- encourage the development of municipal and commercial programs

Examples:

- Spent fluorescent lamps (intact only, broken or crushed lamps are usually hazardous waste)
- Some batteries
- Some pesticides
- Mercury thermostats
- Mercury tilt switches



HOW TO MANAGE YOUR UNIVERSAL WASTE LAMPS

- **Contain it:** put spent lamps in a drum, box, or carton
- **Label it:** “universal waste - lamps” or “waste lamps” or “used lamps.” You can’t use *tubes* or *bulbs*.
- **Date it:** use the accumulation start date
- **Close it:** keep it in a closed container
- **Dispose of it (correctly):** You may store universal waste at your site for up to 1 year. Arrange disposal by a licensed contractor on a schedule
- **Train staff**



**Broken or crushed lamps are hazardous waste not universal waste
**Incandescent lamps and led lights are not regulated

HOW TO MANAGE UNIVERSAL WASTE BATTERIES

- **Label it:** "Universal Waste Battery(ies)" or "Waste Battery(ies)" or "Used Battery(ies)."
- **Date it:** with the accumulation start date
- **Dispose of it (correctly):** - You may store universal waste at your site for up to 1 year. Arrange disposal by a licensed contractor on a schedule.
- **Train staff**

**Alkaline batteries are not regulated

WHAT IS USED OIL?

Used oil - any petroleum-based or synthetic oil that has been used.

Used Oil Is:	Used Oil Is Not:
<ul style="list-style-type: none">•Used synthetic oil — usually derived from coal, shale, or polymer-based starting material.•Used engine oil — typically includes gasoline and diesel engine crankcase oils and piston-engine oils for automobiles, trucks, boats, airplanes, locomotives, and heavy equipment.•Used transmission fluid.•Used refrigeration oil.•Used compressor oils.•Used metalworking fluids and oils.•Used laminating oils.•Used industrial hydraulic fluid.•Used copper and aluminum wire drawing solution.•Used electrical insulating oil.•Used industrial process oils.•Oils used as buoyants. <p>Used oil containing polychlorinated biphenyls may be subject to additional requirements under the Toxics Substances Control Act (see EPA regulations at title 40 of the Code of Federal Regulations part 761).</p>	<ul style="list-style-type: none">•Waste oil that is bottom clean-out waste from virgin fuel storage tanks, virgin fuel oil spill cleanups, or other oil wastes that have not actually been used.•Products such as antifreeze and kerosene.•Vegetable and animal oil.•Petroleum distillates used as solvents. <p>Oils that do not meet EPA's definition of used oil can still pose a threat to the environment when disposed of and could be subject to the RCRA regulations for hazardous waste management.</p>

HOW TO MANAGE YOUR USED OIL

- **Label it:** “Used Oil”
- **Close it:** Keep the container closed
- **Contain it:** Use secondary containment
- **Train staff**

**You cannot burn used oil in the District

HOW TO STAY OUT OF TROUBLE:

1. Get an EPA ID number by completing Form 8700-12 and submitting the registration fee to the Hazardous Waste Branch.
** Required for ALL generators of hazardous waste, universal waste, or used oil
2. Identify all the items in your facility that will be hazardous waste if you can't use them. Review SDSs!!
3. Properly manage and dispose of hazardous waste, universal waste and used oil.
4. Train your staff to follow the rules.
5. Keep your paperwork to prove you did everything right!

PENALTIES!

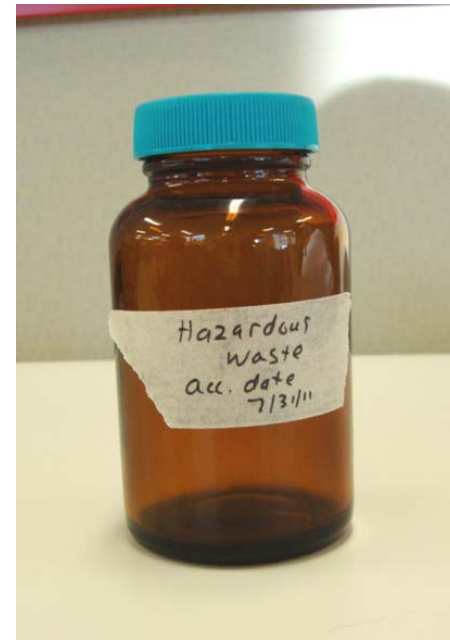
- No EPA ID number is a \$2,000 fine.
- Not properly managing regulated wastes has fines ranging from \$500 - \$2,000 per infraction.
- Not submitting the annual renewal fee is a \$500 fine.
- Not submitting the annual self-certification of compliance is a \$500 fine.
- Clean up expenses caused by not properly managing or disposing of regulated wastes cost many thousands of dollars.
- Failure to properly manage regulated wastes puts you, your staff, your family, and the environment at risk.

EXAMPLES

HAZARDOUS WASTE LABEL



- ✓ Must say “Hazardous Waste”
- ✓ Must be dated with the date it was determined to be a waste.



UNIVERSAL WASTE LAMPS

Universal waste lamps must be:

- ✓ contained
- ✓ closed
- ✓ labeled
- ✓ dated

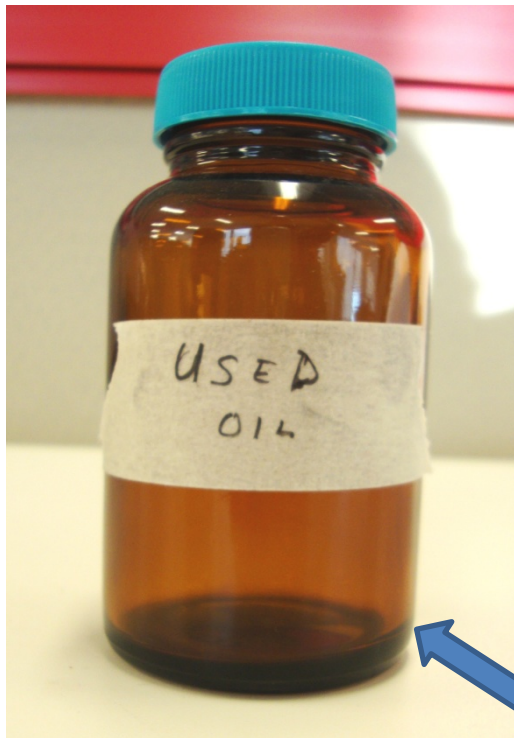


UNIVERSAL WASTE BATTERIES



USED OIL

Handmade and handwritten labels are ok!



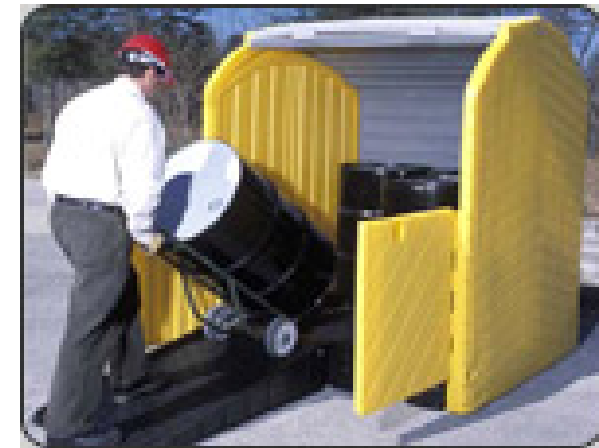
Don't forget that used oil must be in secondary containment, this example is not in secondary containment.

USED OIL STORAGE

Containers of used oil must be closed.



USED OIL: SECONDARY CONTAINMENT



REMINDERS:

- Maintain current information.
 - Update the 8700-12 when the contact person changes, the mailing address changes, the waste streams change, or the generator status changes.
 - It's free to update the information!
- The annual fee is due every March 1st.
 - VSQGs - \$250 or \$100 for those with less than 8 employees.
 - SQG - \$500
 - LQG - \$1000
- The annual self-certification of compliance is due every March 1st.

RESOURCES

Questions can be answered by contacting DOEE Hazardous Waste Branch at: (202) 671-3308

District Regulations and Law may be viewed online at: <http://doee.dc.gov/node/14732>

EPA Form 8700-12 can be found here:

<https://rcrapublic.epa.gov/rcrainfoweb/documents/notification.pdf>

Washington D.C. Annual Self-Certification of Compliance Form 502 can be found here:

<https://octo.quickbase.com/db/bmuq9hqhp?a=dbpage&pageID=34>

Guide: How to Determine if Solvents That Can No Longer Be Used in the Workplace Are Hazardous Waste <https://www.epa.gov/hwgenerators/guide-how-determine-if-solvents-can-no-longer-be-used-workplace-are-hazardous-waste>

Department of Energy and Environment website: www.doee.dc.gov

EPA Regulations may be viewed online at: <https://www.epa.gov/rcra/resource-conservation-and-recovery-act-rcra-regulations#haz>

EPA assistance document for managing hazardous waste for vehicle maintenance providers:

<https://www.epa.gov/sites/production/files/2015-01/documents/vehicle.pdf>



QUESTIONS