

# Universal Waste Requirements

Guidance on Hazardous Waste Requirements



## Introduction

Universal waste regulations provide alternative management standards for specific commonly generated hazardous wastes and are intended to promote environmentally sound collection, management and recycling of these materials. By following the universal waste regulations, facilities can reduce their regulatory requirements for these materials and universal wastes are not counted towards a facility's annual hazardous waste reporting totals.

Hazardous waste regulations are found in chapters [NR 600-679](#) of the Wisconsin Administrative Code.

Basic universal waste management requirements include:

- Prevent leakage, spillage or damage.
- Properly label and mark universal waste or containers of universal waste.
- Do not accumulate universal waste for longer than one year.
- Train employees and respond to any releases that occur.
- Send or take the universal waste to an appropriate facility.

Dilution or treatment of universal waste is prohibited, except when responding to releases or when managing specific wastes under s. NR 673.13, Wis. Adm. Code. The alternative management standards require the materials to be recycled. Therefore, handlers of universal waste are prohibited from disposing of these materials.

Most facilities generating universal wastes will be considered small quantity handlers of universal waste, meaning they do not accumulate more than 11,025 pounds (5,000 kg) of universal waste at any one time. This guidance document is intended for small quantity handlers of universal waste. If you anticipate accumulating 11,025 pounds or more, you are encouraged to contact your Department of Natural Resources regional waste management specialist to understand the additional requirements that apply, including the requirement to notify the department prior to accumulating a combined total of 5,000 kg (11,025 lbs.) of all universal wastes on site. This includes universal waste batteries, pesticides, mercury-containing equipment, and lamps in addition to used antifreeze.

## Universal Wastes

Universal wastes are specific commonly generated hazardous wastes that can be easily collected and managed prior to recycling. When disposed, many of these items meet the definition of hazardous waste. Below are the descriptions of the universal waste categories. [ch. NR 673, Wis. Adm. Code]

The five universal waste categories listed below are the only hazardous wastes that may be managed as universal waste in Wisconsin. Aerosol cans are **not** currently considered a universal waste in Wisconsin. See DNR publication WA-1784, *Aerosol Can Management* for more information.

**Batteries** – Electrochemical cells designed to receive, store and deliver electrical energy.

- Lead-acid batteries, such as those used in automobiles and boats, are hazardous waste due to the lead concentration and the corrosivity of the electrolyte liquid.

- Nickel-cadmium and mercury-oxide batteries are potentially hazardous waste due to the heavy metals in the batteries.
- Lithium-ion batteries are hazardous waste due to the potential for the batteries to react and create a fire hazard.
- Standard alkaline batteries (AAA, AA, C, D, 9V) are not a hazardous waste and are typically not managed as universal waste.

**Lamps** – The bulb or tube portion of electric lighting devices.

- Standard fluorescent and compact fluorescent lamps are potentially hazardous wastes due to the mercury contained within the lamps.
- Mercury vapor, sodium, and high-intensity discharge lamps are potentially hazardous wastes due to the heavy metals used in the lamps.
- Standard incandescent lamps are not a hazardous waste and are typically not managed as universal waste.
- For more details on types of lamps and management options, see the DNR publication Lamp and Bulb Management (WA-195).

**Mercury-containing equipment** – Devices or parts of devices that contain elemental mercury that is integral to the function of the device.

- Mercury containing thermostats, thermometers, relay switches, pressure gauges, barometers and monometers are potentially hazardous wastes.

**Pesticides** – A substance or mixture of substances intended for preventing, destroying, repelling or mitigating any pest, or intended for use as a plant regulator, defoliant or desiccant. Not all pesticides are eligible to be managed as universal waste. Eligible pesticides include:

- Stocks of suspended and/or canceled pesticides that are being recalled.
- Stocks of unused pesticides collected and managed as part of a waste pesticide collection program.

**Antifreeze** – In Wisconsin, used antifreeze can be managed as a universal waste. This includes, but is not limited to, engine coolant mixtures containing ethylene glycol or propylene glycol and water. Through use, antifreeze can become contaminated with lead, chromium, barium, benzene, tetrachloroethene, trichloroethene, or other toxic substances. See DNR publication Used Antifreeze Recycling (WA-356), for more information regarding managing and recycling used antifreeze.

## Handling and Container Requirements

All universal waste must be handled and stored in a manner that prevents releases to the environment. [s. NR 673.13, Wis. Adm. Code]

**Batteries** that show evidence of leakage, spillage or damage must be placed in a container, the container must be structurally sound and kept closed, and the container must be compatible with the contents. For example, it is acceptable for lead-acid batteries to be individually stored on a pallet, or in an open container. However, leaking lead-acid batteries should not be stored in metal containers due to the risk of the acid corroding the container.

To prevent batteries from short circuiting and creating a fire hazard, a best management practice when storing batteries is to tape the battery terminals (clear tape is preferred by recyclers) or to individually package each battery in a container or plastic bag.

**Lamps** must be placed into a container that is structurally sound and kept closed and the container must be compatible with the contents. For example, lamps containing mercury should not be placed in metal containers.

Lamps that are accidentally broken may still be managed as universal waste. However, intentionally breaking or crushing lamps is considered a form of hazardous waste treatment and will subject a facility to more stringent regulation, greatly increasing the cost of disposal.

The department strongly discourages any activity that breaks or crushes lamps, such as using a drum-top lamp crushing device. <https://www.epa.gov/hw/frequent-questions-about-epas-mercury-lamp-drum-top-crusher-study>

**Mercury-Containing Equipment** that shows evidence of leakage, spillage or damage must be placed in a container. The container must be structurally sound and kept closed, and must be compatible with the contents (i.e., non-metal). Mercury-containing ampules may be removed from equipment, such as from thermostats, provided the ampules are removed in compliance with s. NR 673.13(3)(b), Wis. Adm. Code.

**Pesticides** must be contained in a container that is structurally sound and kept closed, and the container must be compatible with the contents.

**Antifreeze** must be kept in structurally sound containers that will not leak or spill under normal conditions and are compatible with the waste. Containers must be kept closed, except when used antifreeze is actively being added or removed from the container.

## Labeling Requirements

Universal waste must be labeled to identify the specific type of waste. There are specific labeling requirements for each type of universal waste that must be followed. Phrases such as “bad bulbs” or “old batteries” are not acceptable. [s. NR 673.14, Wis. Adm. Code]

**Batteries** – Each individual battery, or container of batteries, should be labeled with one of the following phrases: “Universal Waste – Batteries,” “Waste Batteries” or “Used Batteries.” Note that a pallet is not considered to be a container, and if lead-acid batteries are stored on a pallet each individual battery must be labeled.

**Lamp** – Each lamp or container of lamps must be labeled with one of the following phrases: “Universal Waste – Lamps,” “Waste Lamps” or “Used Lamps.”

**Mercury-Containing Equipment** – Each item of mercury-containing equipment (i.e., each device), or container of mercury-containing equipment, must be labeled with one of the following phrases: “Universal Waste – Mercury-Containing Equipment,” “Waste Mercury-Containing Equipment” or “Used Mercury-Containing Equipment.”

**Pesticides** – A container containing universal waste pesticides must be labeled with one of the following phrases: “Universal Waste Pesticides” or “Waste-Pesticides.”

**Antifreeze** – Label containers containing universal waste used antifreeze as “universal waste antifreeze,” “waste antifreeze” or “used antifreeze.”

## Accumulation Time Limits

Universal waste may be accumulated on site for one year, and the facility must be able to demonstrate the length of time the universal waste has been accumulated on site. There are several methods that may be used to demonstrate the length of accumulation for your universal waste. [s. NR 673.15, Wis. Adm. Code]

Universal wastes do not count towards monthly hazardous waste generation.

1. Marking the individual item with the date it became a waste.
2. Marking the container with the date the first item was placed into the container.
3. Maintaining an inventory system that identifies the date each universal waste became a waste, or the earliest date that any universal waste in a group of universal waste became a waste.
4. Placing the universal waste in a specific area and identifying the earliest date that any universal waste in that area became a waste.

An item is typically considered a waste when it can no longer be used for its original intended purpose, has been slated for either recycling or disposal, or has been discarded or disposed.

A facility may use other methods which clearly demonstrate the length of time the universal waste has been accumulated on site.

Waste may be accumulated for longer than one year when solely for the purpose of accumulating a quantity necessary to facilitate proper recovery. It is the facility's burden to prove the necessity of exceeding the one-year accumulation time limit. Reducing costs or shipments may be desirable but is not considered necessary to facilitate proper recovery.

## Employee Training Requirements

Employees handling or managing universal waste must be informed on the proper handling and emergency procedures appropriate for the types of wastes handled at your facility. Employees must be trained on how to handle the materials, proper storage and labeling requirements, container requirements if waste is stored in containers, and how to respond to releases. [s. NR 673.16, Wis. Adm. Code]

The department recommends, as a best management practice, that facilities conduct training on an annual basis, and that the training be documented.

## Responding to Releases

It is recommended that broken, damaged, spilled or leaking universal waste be managed as soon as possible and that these wastes be repacked and placed into containers and managed as universal waste. If other materials are generated, such as cleanup supplies or contaminated soil, those items may be required to be managed as hazardous waste.

Facilities must immediately contain all releases of universal waste, or residues generated from universal wastes. [s. NR 673.17, Wis. Adm. Code]

While the facility is responsible for responding to releases this does not mean your employees have to be the ones conducting the cleanup. Depending on the nature of the release, your response may be to evacuate employees from the area and call an expert. Mercury spills, for instance, can be hazardous if not managed with proper equipment and training.

**Report spills of hazardous substances** to the environment to the Department of Natural Resources using the 24-hour toll free hotline number: 1-800-943-0003. Used absorbent materials from the spill should be stored in a leak-proof, labeled container. Contact your universal waste recycling vendor for further instructions on how to manage and dispose of the materials. Following any spill of used antifreeze, you must make a proper waste determination to determine whether the spilled used antifreeze is a hazardous waste.

## Removal and Transport

Universal waste cannot be disposed of with your facility's regular garbage or with any other hazardous wastes. These materials must be sent to an appropriate facility, either a destination facility that will properly recycle the material, or another universal waste handler that will then ship the waste to a destination facility. [s. NR 673.18, Wis. Adm. Code]

If your facility self-transportes your universal waste off site, Department of Transportation requirements may apply to universal wastes that meet the DOT definition of hazardous materials. These requirements may include packing, labeling and preparing shipping papers in accordance with [49 CFR Parts 172](#) to [180](#).

## Resources and Contact Information

For more information, including [publications, inspection forms, and administrative codes and statutes](#), go to [dnr.wi.gov](http://dnr.wi.gov) and search "hazardous waste resources." Use the *Additional Resources* menu to navigate to specific topics. For staff contact information, go to the [staff directory](#) and enter "hazardous waste requirements" in the subject field, and choose the appropriate county contact.

**Mailing address:** DNR Waste & Materials Management Program, PO Box 7921, Madison, WI 53707

**Email:** [DNRWasteMaterials@Wisconsin.gov](mailto:DNRWasteMaterials@Wisconsin.gov)

**PUB-WA-1900 2020**

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