UNIVERSAL WASTE

GUIDANCE

INTRODUCTION

The universal waste rules were designed to promote recycling and simplify disposal for certain types of commonly generated hazardous waste. The universal waste rules reduce the regulatory burden in managing certain types of hazardous wastes without compromising human health and environmental protections. When managing waste under the universal waste rules, a generator can presume the waste is a hazardous waste and manage it to meet all of the universal waste requirements.

UNIVERSAL WASTE DEFINITION

All facilities, including manufacturing industries, commercial businesses, governmental agencies, health care providers, administrative offices, and other non-household waste generators, are required to determine if they generate hazardous waste (see the Waste Characterization guidance). Michigan facilities may choose to handle the following hazardous waste types as universal waste under the streamlined universal waste standards:

- **Aerosol cans:** A container in which gas under pressure is used to aerate and dispense any material through a valve in the form of a spray or foam.
- **Antifreeze:** A mixture containing ethylene glycol or propylene glycol used as a heat transfer or dehydration fluid.
- **Batteries:** A device which consists of one or more electrically connected electrochemical cells and which is designed to receive, store, and deliver electric energy. This category includes hazardous waste batteries such as nickel-cadmium, spent lead-acid, and lithium batteries.
- **Consumer electronics:** A device containing an electronic circuit board, liquid crystal display, or plasma display which is commonly found in homes and offices and these devices when used in other settings.
- **Devices containing elemental mercury:** A device or part of a device (excluding batteries and lamps) that contains elemental mercury integral to its function. Some commonly recognized devices are thermostats, barometers, manometers, temperature and pressure gauges, and mercury switches, such as light switches in automobiles.

- **Lamps:** The bulb or tube portion of a lighting device specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infrared regions of the electromagnetic spectrum. Lamps can exhibit the toxicity characteristic for some heavy metals (i.e., mercury, lead, cadmium). Examples of universal waste lamps include incandescent, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium and metal halide lamps.
- **Pesticides:** Certain suspended, canceled, or unused pesticides.
- **Pharmaceuticals:** Drugs for both human and veterinary use.

Universal waste has alternative management standards found in Rule 228 of the Part 111 hazardous waste rules. Generators may elect to manage universal waste types following these standards instead of managing it as a fully regulated hazardous waste. The designation of consumer electronics, antifreeze, and pharmaceuticals as a universal waste type is unique to Michigan. Moreover, by February 22, 2022, EGLE is required to adopt new federal hazardous waste regulations for handling hazardous waste pharmaceuticals from healthcare and rescind the designation of pharmaceuticals as a universal waste type.

When households generate these types of wastes, they are not regulated in the same way unless the household waste is mixed with universal waste from a non-household. If mixed, the mixture must all be managed to meet the universal waste standards.

If generators choose not to handle these waste streams as universal waste, they need to manage them to meet the requirements that apply to their generator category. Those requirements vary depending on the weight of hazardous waste generated at the site each month. This information is used to determine the site's hazardous waste generator category — large quantity generator (LQG), small quantity generator (SQG), or very small quantity generator (VSQG) of hazardous waste. The more hazardous waste a site generates, the greater the hazard associated with the waste, and the more regulation the site must meet. To understand the generator categories and requirements that apply, see the Hazardous Waste Generator Category and Summary of Accumulation Requirements.

Universal waste spill and cleanup materials are not eligible for management as a universal waste. The weight of the spill and clean-up materials must be included when making a site's monthly generator category determination. SQGs and VSQGs may consider using the episodic generator requirements found under Rule 316 of the Part 111 hazardous waste rules to maintain their existing generator category. For a summary of the episodic generator requirements, see the SQG Requirements and VSQG Requirements guides.

UNIVERSAL WASTE BENEFITS

Some of the biggest benefits to managing wastes under the universal waste standards include:

- The generator does not need to maintain elaborate waste characterization data, as the waste is being managed as a hazardous waste under the most stringent environmental standards for recycling or disposal.
- The generator does not include the weight of the waste when determining the site's monthly generator category. This can decrease a site's generator category, minimize the regulatory requirements the site must meet, and eliminate some of the recordkeeping needed for generator category determinations.
- The generator may accumulate universal waste on-site for up to one year, much longer than the 90 or 180 days allowed for LQGs and SQGs, respectively. This generally reduces cost by minimizing the number of pick-ups needed for recycling or disposal.
- The generator has greater flexibility in locating accumulation containers. Containers can be placed in areas convenient for staff. Universal waste containers do not have to be located at the point of generation under the control of an operator or in an accumulation area with secondary containment as is required when managing the waste under the SQG and LQG regulations.

MANAGING UNIVERSAL WASTE

A business or government agency that generates or stores universal waste is a universal waste handler. Sites that recycle, treat, or dispose of universal waste are universal waste destination facilities. Destination facilities must comply with the state and federal requirements for recycling, treating, or disposing of hazardous waste.

Universal waste handlers are classified as Small Quantity Handlers (SQH) or Large Quantity Handlers (LQH) depending on the amount of universal waste accumulated at any one time. SQHs accumulate less than 5,000 kilograms(kg) (11,000 pounds) total of all universal waste types combined at any time. LQHs accumulate 5,000 kg (11,000 pounds) or more of all universal waste types combined at any time. This designation as a LQH is retained through the end of the calendar year in which this amount of universal waste accumulated exceeds the SQH limit.

The following table describes the requirements for both categories of universal waste handlers:

REQUIREMENTS FOR SMALL AND LARGE QUANTITIY HANDLERS OF UNIVERSAL WASTE

Topic	Requirement
Site ID Number	**SQH:** Not required **LQH:** Required before meeting or exceeding 5,000 kg of universal waste
Prohibitions	Must not dispose, dilute, or treat universal waste except when responding to releases. Some limited activities are allowed and highlighted below.
Universal waste accumulation time limit	One year from the date the waste was generated or received from another handler. The time limit must be tracked. Mark the universal waste with the generated or received date or keep records to verify how long you have accumulated it.
Labeling	Required, see below.
Accumulation	Containers and tanks must be in good condition, structurally sound, and compatible with the type of universal waste accumulated in them. Containers and tanks must be accumulated in a manner that prevents any spills or releases. Tanks must meet all requirement found under Title 40 of the Code of Federal Regulations, Part 256, Subpart J.*
Employee training	**SQH:** Employees must be informed of proper universal waste handling and emergency procedures. Training records are not required. **LQH:** Employees must be thoroughly familiar with proper universal waste handling and emergency procedures. Training records are not required.
Releases from universal waste	Must prevent releases of universal waste to the environment; must immediately contain, clean up and properly characterize any such releases. Depending on the type of universal waste and release, there may be release reporting requirements under various regulations. Learn more at Michigan.gov/ChemRelease.
Hazardous waste manifests/Land Disposal Restriction (LDR) notification forms for off-site shipments	Hazardous waste manifests and LDR notices are not required for shipments within Michigan. If receiving state does not recognize the universal waste designation, use a hazardous waste manifest to meet other state's requirements. Note in Box 14 waste was managed as a universal waste when in Michigan. If waste is liquid, a permitted, registered and insured liquid industrial by-products transporter is required and the shipment must be documented on a liquid industrial by-products shipping document. If shipment is a hazardous materials, US DOT packaging, labeling, marking, placarding, shipping papers and training rules apply.

REQUIREMENTS FOR SMALL AND LARGE QUANTITIY HANDLERS OF UNIVERSAL WASTE - Continued

Topic	Requirement
Off-site shipments	Ship only to a site that has agreed to accept the universal waste. Confirm the universal waste destination facility receiving the shipment is an authorized destination facility. If hauling own liquid waste generated from equipment which you own, maintain required insurance for liquid industrial by-products transport.
Recordkeeping	**SQH:** Not specifically required but is recommended to: ✓ demonstrate SQH category is maintained, and ✓ universal waste is accumulated for no more than 1 year. Labeling and signage may be used for demonstrating compliance as well as records. **LQH:** Must keep a record of each shipment received at, or sent from, the facility for three years from the shipment date (e.g., logs, manifests, bills of lading). The following must be recorded: ✓ Name and address where the waste came from if received from handler or where was shipped to another ✓ Quantity of each waste type (e.g. batteries, electric lamps, pesticides, or mercury containing devices) received or shipped out. ✓ Date when shipment was received or sent out
Reporting	Required for universal waste handlers and destination facilities accepting universal waste liquids from another universal waste handler.

* Depending on the type and amount of universal waste being accumulated, secondary containment and surveillance may be required under the water regulations. To learn more, go to Michigan.gov/Part5.

AEROSOL CANS

Aerosol cans are a common waste generated by most businesses. Aerosol cans contain a product and propellant under pressure. The product is released from the aerosol can (the container) in the form of a spray or mist when the nozzle is pressed to apply the product. As the product is used, the propellant is also used. An aerosol can is specifically defined under the hazardous waste regulations as a non-refillable container that:

- contains a gas compressed, liquified, or dissolved under pressure, for which the sole purpose is to spray a liquid, paste, or powder, and
- is fitted with a self-closing release device which allows the contents to be ejected by the gas.

Examples of products commonly dispensed using aerosol cans include:

- maintenance products (degreasers and cleansers)
- beauty products (hair sprays and perfumes)
- surface coating products (paints and varnishes)
- personal care products
- pharmaceutical products (inhalers), and
- pesticides (ant or wasp sprays)

Although EGLE does not consider empty aerosol cans a reactive hazardous waste, some states do and most solid waste vendors require special waste approvals for aerosols due to the explosion hazard they present when compacted.

Unused aerosol cans become a waste on the date the universal waste handler decides to discard it. Used aerosol cans become a waste when discarded and not empty. Non-empty aerosol cans that contain pesticides may be managed as universal waste.

When managed as universal waste, the universal waste handler regulations require handlers to manage aerosol cans in a way that prevents a release of any component of universal waste to the environment. Universal waste aerosol cans must be accumulated in a container that is structurally sound, compatible with the contents of the aerosol cans, and lacks evidence of leakage, spillage, or damage that could cause leakage. Containers must be protected from heat sources (e.g., open flames; lightning; smoking; cutting and welding; hot surfaces; frictional heat; and static, electrical, and mechanical sparks).

Leaking or damaged aerosol cans must be either packaged in a separate closed container, overpacked with absorbents, or immediately punctured and drained.

Individual aerosol cans or aerosol can storage containers must be labeled with the words "Universal Waste—Aerosol Cans," "Waste Aerosol Cans," or "Used Aerosol Cans."

Handlers may sort aerosol cans by type, mix intact cans into one container, remove nozzles to reduce risk of accidental release, and puncture and drain empty aerosol cans if the cans are recycled and residual liquids are properly characterized and managed.

Handlers that puncture universal waste aerosol cans must also meet the following requirements specified under the universal waste regulations:

- ✓ Puncturing and draining must be conducted using a device specifically designed to safely puncture aerosol cans and effectively contain the residual contents and any emissions.
- ✓ Handlers must develop and follow a written procedure detailing how to safely puncture and drain aerosol cans. This procedure must address proper assembly, operation, and maintenance of the puncturing unit, segregation of incompatible wastes, and proper waste management practices to prevent fires and releases. Handlers must maintain a copy of the puncturing device manufacturer's instructions onsite and ensure employees operating the device are trained in the proper procedures.

- ✓ Puncturing must be performed in a manner designed to prevent fires and releases into the environment. This includes, but is not limited to, locating the equipment on a solid, flat surface in a well-ventilated area.
- ✓ The contents from the waste aerosol can or puncturing device are immediately transferred to a container or tank that meets requirements of hazardous waste rules that apply to the site's generator status or the liquid industrial by-products generator requirements.
- ✓ Handlers must determine if the contents from the emptied aerosol cans are hazardous waste. Any hazardous waste generated from puncturing the cans is subject to all hazardous waste regulations, and the handler is considered the generator of the hazardous waste.
- ✓ Handlers must have a written procedure for cleaning up spills or leaks of the contents of the aerosol cans. A spill cleanup kit must be provided, and all spills or leaks must be cleaned up promptly.

Universal waste generators may also puncture and drain non-empty universal waste aerosol cans, but secondary universal waste handlers cannot unless they are a universal waste destination facilities licensed under the hazardous waste regulations. Air permitting and hazardous waste licensing is required in some cases prior to installing aerosol can puncturing process equipment. For details on additional regulations that apply to puncturing beyond the universal waste rules, please see the aerosol can puncture guide.

ANTIFREEZE

Antifreeze is a mixture of water, coolant, and additives. It is used to protect engines and other equipment against overheating and corrosion and also from freezing in low temperatures. It is also used as a deicing agent for airplanes. The two most common coolants used in antifreeze are ethylene glycol and propylene glycol. Most antifreeze is nonhazardous and may be managed as a liquid industrial by-product. However, sometimes antifreeze becomes a hazardous waste because it contains:

- Regulated concentrations of lead or cadmium that leached from a radiator.
- Regulated concentrations of benzene from gasoline that leaked into the antifreeze.
- Listed solvents from over-spraying aerosol products such as brake and carburetor cleaners that get into the antifreeze.
- Other hazardous wastes that were missed with the antifreeze.

If a company assumes or specifically knows its antifreeze is hazardous and manages it as a universal waste, it must be managed to meet the universal waste handler requirements, in addition to the requirements for managing liquid industrial byproducts. Containers and tanks must be labeled with words "Universal Waste Antifreeze," "Waste Antifreeze," or "Used Antifreeze." The containers must be kept closed, except to add or remove universal waste. The containers must be structurally sound,

compatible with the antifreeze, and lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. Storage tanks must meet additional requirements in 40 C.F.R. part 265, subpart J, except for 40 C.F.R. §§265.197(c), 265.200, and 265.201, which includes, but not limited to:

- Professional engineer certifications required for new tank systems and integrity assessments of existing tank systems.
- Inspections at least once each operating day.
- Secondary containment.
- General operating requirements.

Any spills must be immediately clean up, properly characterized and disposed.

BATTERIES

A battery is a device with one or more electrically connected electrochemical cells that is designed to receive, store, and deliver electric energy. An electrochemical cell is a system that consists of an anode, a cathode, an electrolyte, and any connections that are needed to allow the cell to deliver or receive electrical energy. The term battery also includes an intact, unbroken battery from which the electrolyte has been removed.

A *used* battery becomes a waste when it is discarded. An *unused* battery becomes a waste when the handler decides to discard it. Batteries must be managed in a way that prevents releases to the environment. Batteries that show evidence of leakage, spillage or damage that could cause a leakage must be placed in a container that is closed, structurally sound, compatible with the contents of the battery, and lacks evidence of leakage, spillage or damage that could cause a leakage.

Handlers are allowed to conduct the following activities with batteries that are intact:

- Sort batteries by type.
- Mix battery types in one containers.
- Discharge batteries to remove the electric charge.
- Regenerate used batteries.
- Disassemble batteries or battery packs into individual batteries.
- Remove electrolyte.
- Remove batteries from discarded consumer products.

If a handler removes electrolytes from universal waste batteries, the handler must determine if the electrolyte exhibits a characteristic of hazardous waste. If it exhibits a characteristic of hazardous waste, it is a newly generated waste and not a universal waste and must be managed as a hazardous waste.

Universal waste batteries (e.g., each battery) or a container in which the batteries are contained must be labeled with any of the following: "Universal Waste-Battery(ies)" or "Waste Battery(ies)" or "Used Battery(ies)."

Lead acid batteries are banned from disposal in Michigan's landfills and incinerators and are normally handled under Rule 804 of the Part 111 rules, instead of the universal waste rule. Under Rule 804, the company must characterize the waste batteries and meet LDRs including having the one-time notice/certification on file. The LDR does not apply to VSQGs. When being recycled, the battery volume is not included when determining generator category. It is not necessary to use hazardous waste manifests when shipping the used lead acid batteries to a recycler, nor hire a permitted and registered hazardous waste transporter. In addition, there is no time limit in the state regulations on how long you may store the lead acid batteries before shipping. There may be local ordinances that have time limits or other requirements. Shipments need to meet the US DOT transportation requirements unless it meets an exception in 49 CFR 173.159.

Consumer Electronics

Consumer electronics are devices run by electricity containing circuit boards commonly found in offices and homes such as computers, printers, fax machines, telephones, printers, televisions, etc. Cathode ray tubes (CRTs) from equipment like computers and televisions may be handled as either consumer electronics or electric lamps universal waste. Consumer electronics include intact devices. Dismantled electronics do not qualify for management as a universal waste.

Consumer electronics must be managed in a manner that prevents breakage or a release by containing the consumer electronics in packaging that will prevent breakage during normal handling conditions. Handlers must properly contain, classify, and dispose of releases of consumer electronics and their residues.

The outer packaging or a container must be labeled with the words "Universal Waste Electronics" or "Universal Waste Consumer Electronics."

Handlers may do any of the following under the universal waste regulation:

- Repair electronics for potential redirect reuse.
- Remove other universal waste, e.g., batteries from the electronics.
- Remove individual modular components for direct reuse.
- Wipe hard drives to destroy data.

To find recyclers, search the Recycled Materials Market Directory for electronics or see the EGLE list of registered electronic recyclers at Michigan.gov/EGLEEWaste. Many electronic waste 'recyclers' are actually universal waste handlers that resell refurbished equipment and components. However, if a recycler is processing electronic waste, please contact the Materials Management Division District Office to discuss operations to determine if additional permits are needed.

Devices Containing Elemental Mercury

A thermostat is a temperature control device that contains elemental mercury in an ampule attached to a bimetal sensing element and includes mercury-containing ampules that have been removed from the temperature control device. Other device containing elemental mercury include mercury thermometers, vehicle switches, and sphygmomanometers.

A *used* thermostat, mercury switch, or other device containing only elemental mercury as its hazardous waste constituent becomes a waste on the date it is discarded. An *unused* device becomes a waste on the date the handler decides to discard it.

The universal waste regulations do not apply to mercury that was removed from devices or ampules (e.g., mercury collected in a container). Facilities will need to manage that mercury under the hazardous waste rules that apply to their generator status.

Mercury-containing equipment with non-contained elemental mercury or that shows evidence of leakage, spillage, or damage that could cause leakage must be placed in a container that is closed, structurally sound, compatible with the contents of the device, lacks evidence of leakage, spillage or damage that could cause leakage or releases of mercury or other hazardous constituents to the environment, and reasonably designed to prevent the escape of mercury into the environment by volatilization or any other means.

Handlers may remove mercury-containing ampules from if the following conditions are met:

- ✓ Ampules are removed and managed in a manner designed to prevent breakage.
- ✓ Removed the ampules only over or in a containment device.
- ✓ A mercury clean-up system is readily available to immediately transfer any mercury resulting from spills or leaks to a container.
- ✓ Any mercury resulting from spills or leaks from broken ampules are immediately transferred from the containment device to a container.
- ✓ The area in which ampules are removed is well ventilated and monitored to ensure compliance with OSHA exposure levels for mercury.
- ✓ Employees removing ampules are thoroughly familiar with proper waste mercury handling and emergency procedures.
- ✓ Removed ampules are stored in closed, non-leaking containers that are in good condition.
- ✓ Removed ampules are packed in the container with packing materials adequate to prevent breakage during storage, handling, and transportation.

If the handler removes the original housing that holds mercury in devices that do not contain ampules, the handler must immediately seal the original housing to prevent a mercury release and follow the ampule management requirements discussed above.

Handlers must determine if mercury clean-up residues resulting from spills or leaks or any solid waste generated as a result of the removal of mercury-containing ampules or housings exhibit characteristics of hazardous waste. If these materials exhibit a characteristic of hazardous waste, they must be managed in compliance with all hazardous waste rules that apply to their generator status. The handler is considered the generator of the mercury residues, and/or other spill clean-up waste.

Universal waste mercury-containing equipment (i.e., each device), or a container in which the equipment is contained, must be labeled, or marked clearly with "Universal Waste - Mercury-Containing Equipment", or "Waste Mercury-Containing Equipment", or "Used Mercury-Containing Equipment".

A universal waste mercury-containing thermostat or container containing only universal waste mercury-containing thermostats, must be labeled, or marked clearly with "Universal Waste - Mercury Thermostat(s)," or "Waste Mercury Thermostat(s)," or "Used Mercury Thermostat(s)."

LAMPS

A lamp is the bulb or tube portion of a lighting device specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infrared regions of the electromagnetic spectrum. Common lamps include fluorescent, high intensity discharge, sodium vapor, mercury vapor, neon, and incandescent lamps, light emitting diode, and cathode ray tubes (CRTs) from computers and televisions. A company may choose to handle CRTs as consumer electronics or electric lamp universal waste in Michigan.

Used lamps become waste on the date the handler permanently removes it from its fixture. *Unused lamps* become waste on the date the handler decides to discard it.

Lamps must be managed in manner that prevents releases to the environments and must be stored in packages that are structurally sound, adequate to prevent breakage, compatible with the contents of the of the lamps, closed, and lack evidence of leakage, spillage, or damage that leakage or releases of mercury or other hazardous constituents to the environment.

Handlers must immediately clean up and place any lamp that is broken in packaging and place any lamp that shows evidence of breakage, leakage, or damage that could cause the release of mercury or other hazardous constituents to the environment in packaging that is structurally sound, adequate to prevent breakage, compatible with the contents of the of the lamps, closed, and lack evidence of leakage, spillage or damage that leakage or releases of mercury or other hazardous constituents to the environment. Broken lamps generally cannot be handled as universal waste in Michigan. Additionally, many recyclers only want to handle unbroken/uncrushed lamps. If you are managing lamps as a universal waste and experience incidental breakage while handling, if the container remains intact and closed, preventing any release, contact your universal waste handler to determine whether they can accept your waste and any additional requirements you must take to ensure proper handling upon receipt.

Individual lamps or storage containers must be labeled with the words "Universal Waste Lamp(s)" or "Waste Lamp(s)" or "Used Lamp(s)."

Do not crush or break the lamps. Operating a lamp crushing device (sometimes called drum top crusher) requires a permit from the Air Quality Division and there are additional hazardous waste requirements. Once the lamps are broken, they cannot be managed as universal waste.

PESTICIDES

A pesticide is 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.

Recalled, suspended, and cancelled pesticides, and unused pesticides that have not been recalled but are collected and managed as part of a waste pesticide collection program may be managed as a universal waste. *Recalled, suspended, and cancelled* pesticides become a waste on the first date on which the generator agrees to participate in the voluntary or mandatory recall and the person conducting the recall decides to discard it. An *unused* pesticide becomes a waste on the date the generator decides to discard it.

When managed as universal waste, handlers must manage pesticides in a way that prevents a release or any component of universal waste to the environment. Universal waste pesticides must be contained in one or more of the following:

- A container that is closed, structurally sound, compatible with the pesticide, and lacking evidence of leakage, spillage or damage that could cause leakage.
- An overpacked container that is closed, structurally sound, compatible with the pesticide, and lacking evidence of leakage, spillage or damage that could cause leakage.
- A tank that meets the requirements of 40 CFR part 265 subpart J.
- A transport vehicle or vessel that is closed, structurally sound, compatible with the pesticide; and lacking evidence of leakage, spillage or damage that could cause leakage.

A container (or multiple container package unit), tank, transport vehicle or vessel in which recalled universal waste pesticides are contained is labeled or marked clearly with the label that was on or accompanied the product as sold or distributed and the words "Universal Waste—Pesticide(s)" or "Waste Pesticide(s)."

PHARMACEUTICALS

Pharmaceuticals are chemical formulations used in the diagnosis, cure, mitigation, treatment, therapy, or prevention of disease in humans or animals. A pharmaceutical becomes a waste when it can no longer be administered to a patient and must be discarded.

Universal waste pharmaceuticals must be accumulated in a manner that prevents release. They must be placed in containers that remain closed, except to add or remove waste and the containers are to be labeled with the words "Universal Waste Pharmaceuticals." The container must be

structurally sound, compatible with the waste, and lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable circumstances. If a container does not meet these conditions, it is to be overpacked in a container that does meet these conditions. Incompatible pharmaceuticals must be segregated by adequate distance to prevent the contact of incompatible materials. If a release of pharmaceuticals or component of pharmaceuticals occurs, the release must be immediately cleaned up and properly characterized for disposal. Spill and clean-up waste cannot be managed as a universal waste pharmaceutical.

Universal waste pharmaceutical handlers can disassemble packaging and sort pharmaceuticals.

Michigan is the only state with pharmaceuticals designated as a universal waste type. Consequently, when managing universal waste pharmaceuticals in Michigan, they can be documented on a shipping document and transported within Michigan by an authorized liquid industrial by-products transporter to another universal waste handler. If the shipping only contains *solid* pharmaceuticals, no documentation is required and an EGLE permitted and registered transporter is not required. However, when shipping universal waste pharmaceuticals out of state, both solids and liquids, the shipment must be documented on a uniform hazardous waste manifest and transported by a permitted and registered hazardous waste transporter to a licensed hazardous waste disposal facility. Michigan recommends noting in Box 14 of the manifest that the shipment was managed as a universal waste when managed in Michigan. This helps verify that the weight of the shipment is not included when making a generator category determination.

On February 22, 2019, the United States Environmental Protection Act issued new federal hazardous waste rules for managing hazardous waste pharmaceuticals in healthcare. The federal rulemaking prohibits healthcare providers nationally from sewering hazardous waste pharmaceuticals for disposal as of August 18, 2020. Michigan has until February 22, 2022, to adopt the other mandatory provisions in the rules into Michigan's hazardous waste rules and abandon the designation of pharmaceuticals as a universal waste. Until the federal rules are formally adopted and become effective, pharmaceuticals may be managed as a universal waste in Michigan.

For additional information on handling pharmaceuticals now, and after Michigan adopts the new federal rulemaking, please see the following resources:

- Handling Unwanted Pharmaceuticals and their Containers in Healthcare
- Recorded Webinar on Existing and Proposed Pharmaceutical Waste Regulations
- UPDATED Webinar Notes Reflecting Proposed and Final Federal Rules for Pharmaceutical Waste
- Notice on Sewer Ban for Hazardous Waste Pharmaceuticals under New National Rules for Healthcare
- MHA Healthcare Pharmaceutical Waste Management Guide
- MHA Guide Example Pharmaceutical Posting

ADDITIONAL ASSISTANCE

For additional assistance, contact the Environmental Assistance Center at 800-662-9278 or EGLE-Assist@Michigan.gov and ask to for the hazardous waste program staff in your county.